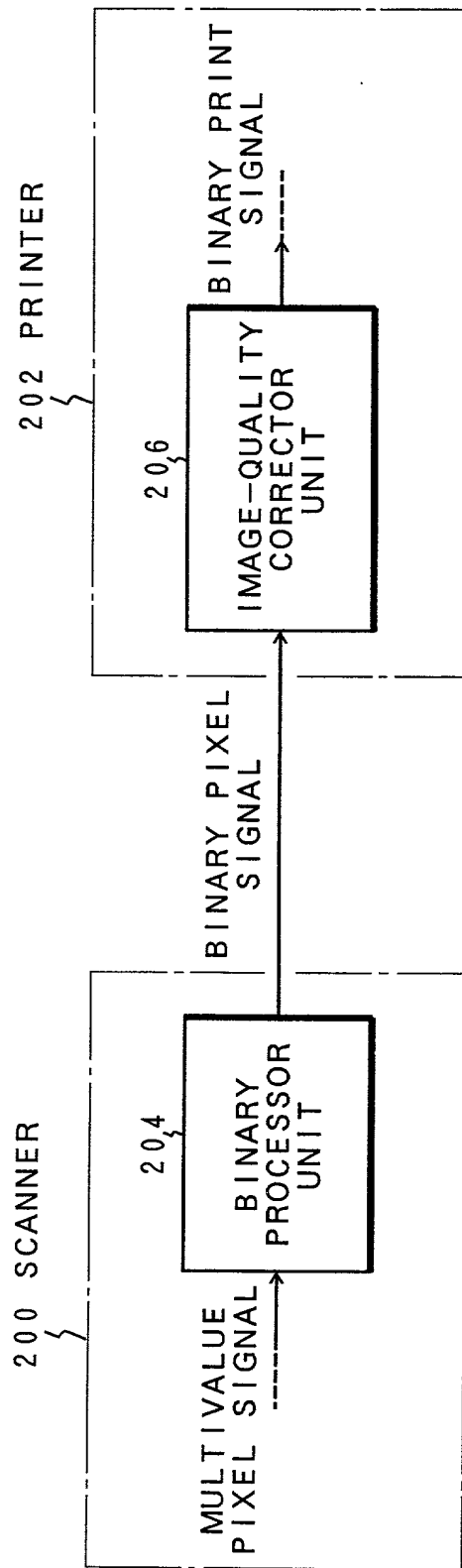
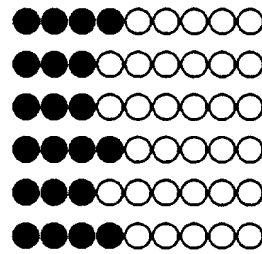


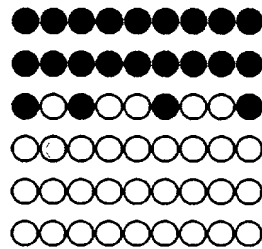
FIG. 1 PRIOR ART



PRIOR ART
FIG. 2A

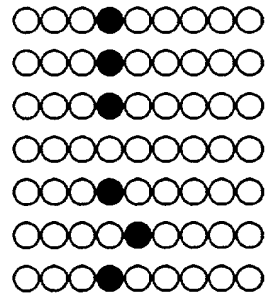


PRIOR ART
FIG. 2B

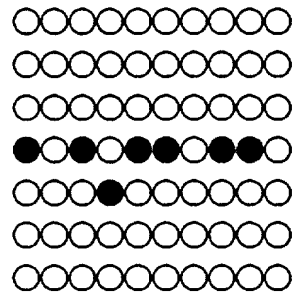


09835620-041701

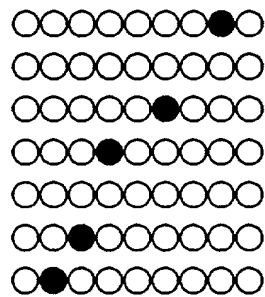
PRIOR ART
FIG. 3A



PRIOR ART
FIG. 3B



PRIOR ART
FIG. 3C



09835620-041701

FIG. 4A PRIOR ART

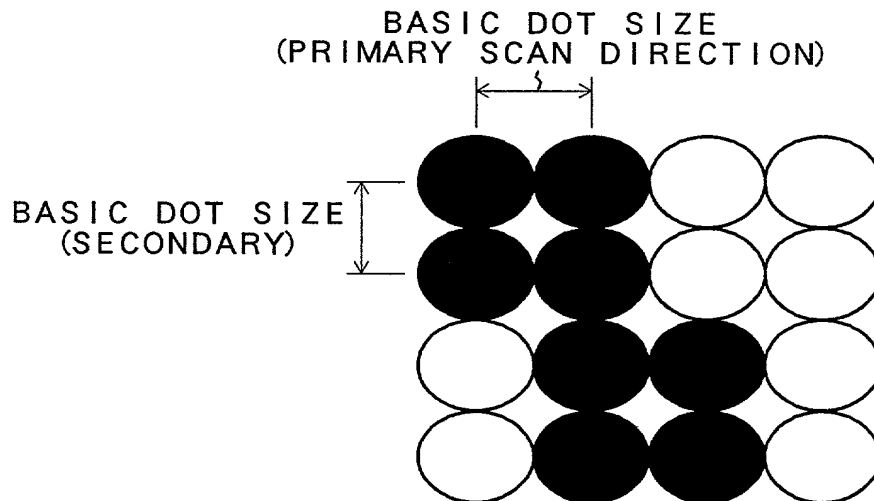
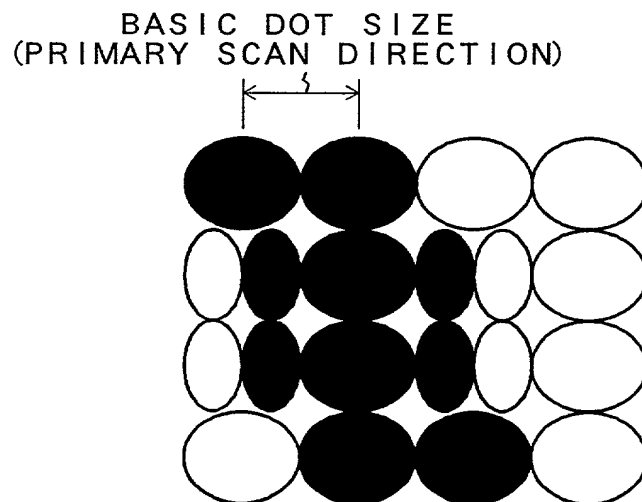
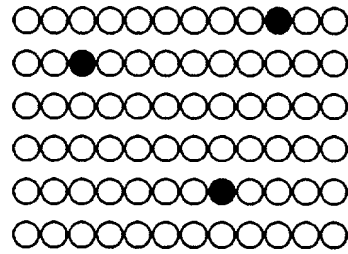


FIG. 4B PRIOR ART

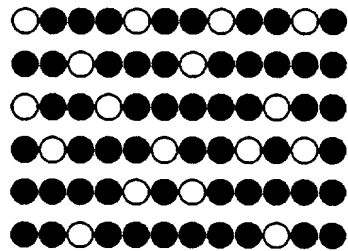


09835620-041701

PRIOR ART
FIG. 5A

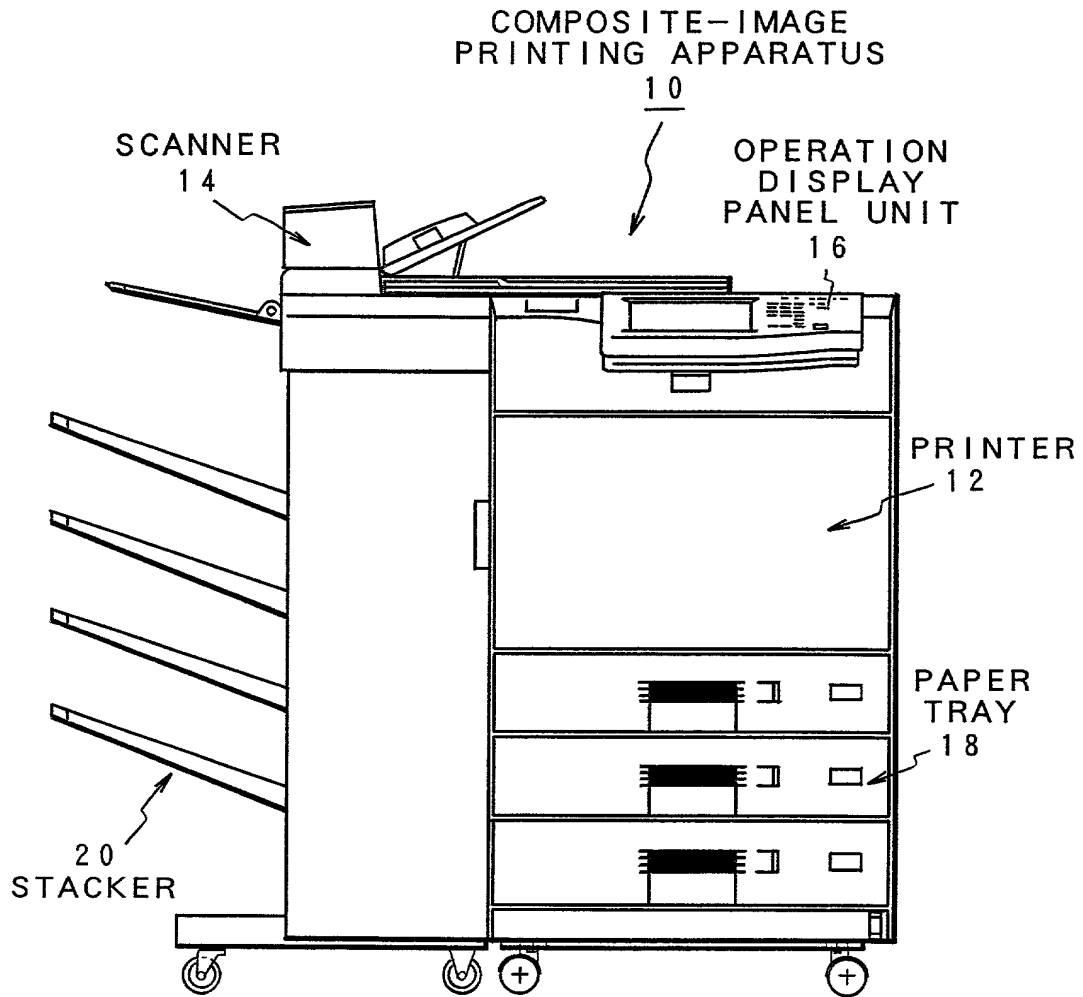


PRIOR ART
FIG. 5B



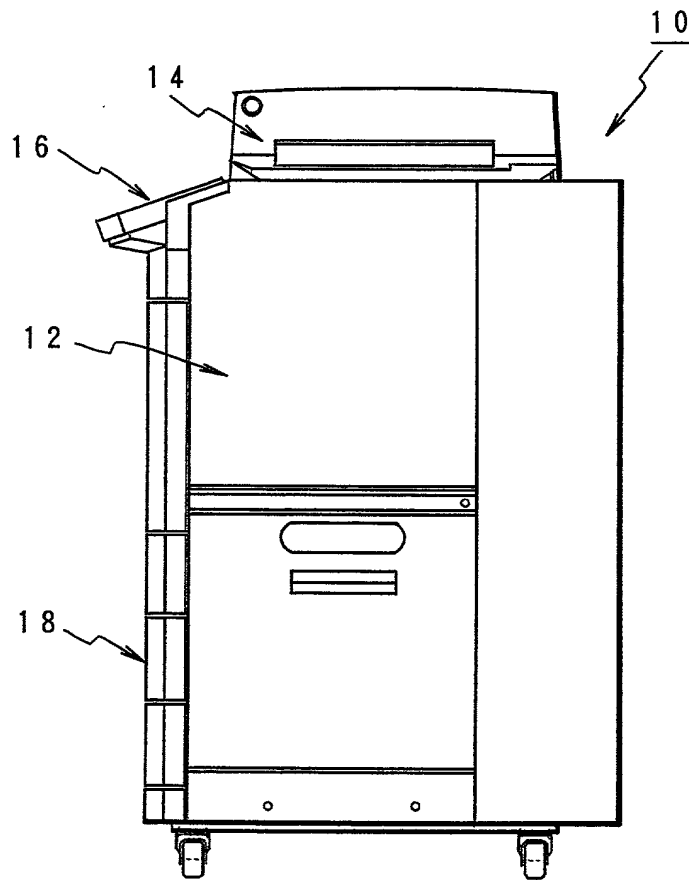
09835620.041701

FIG. 6



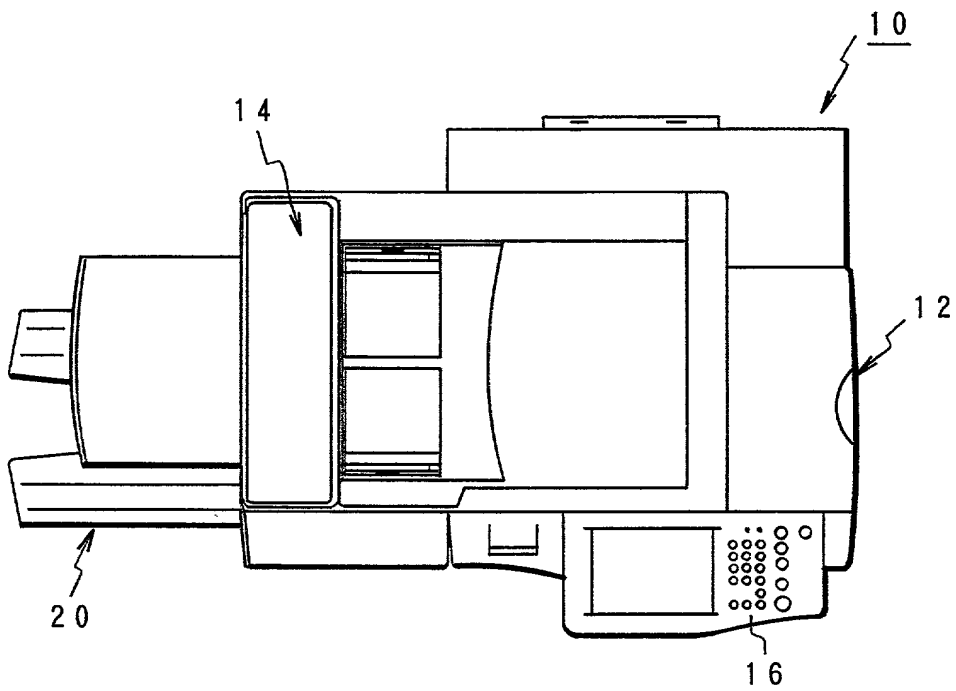
09835620-041701

FIG. 7



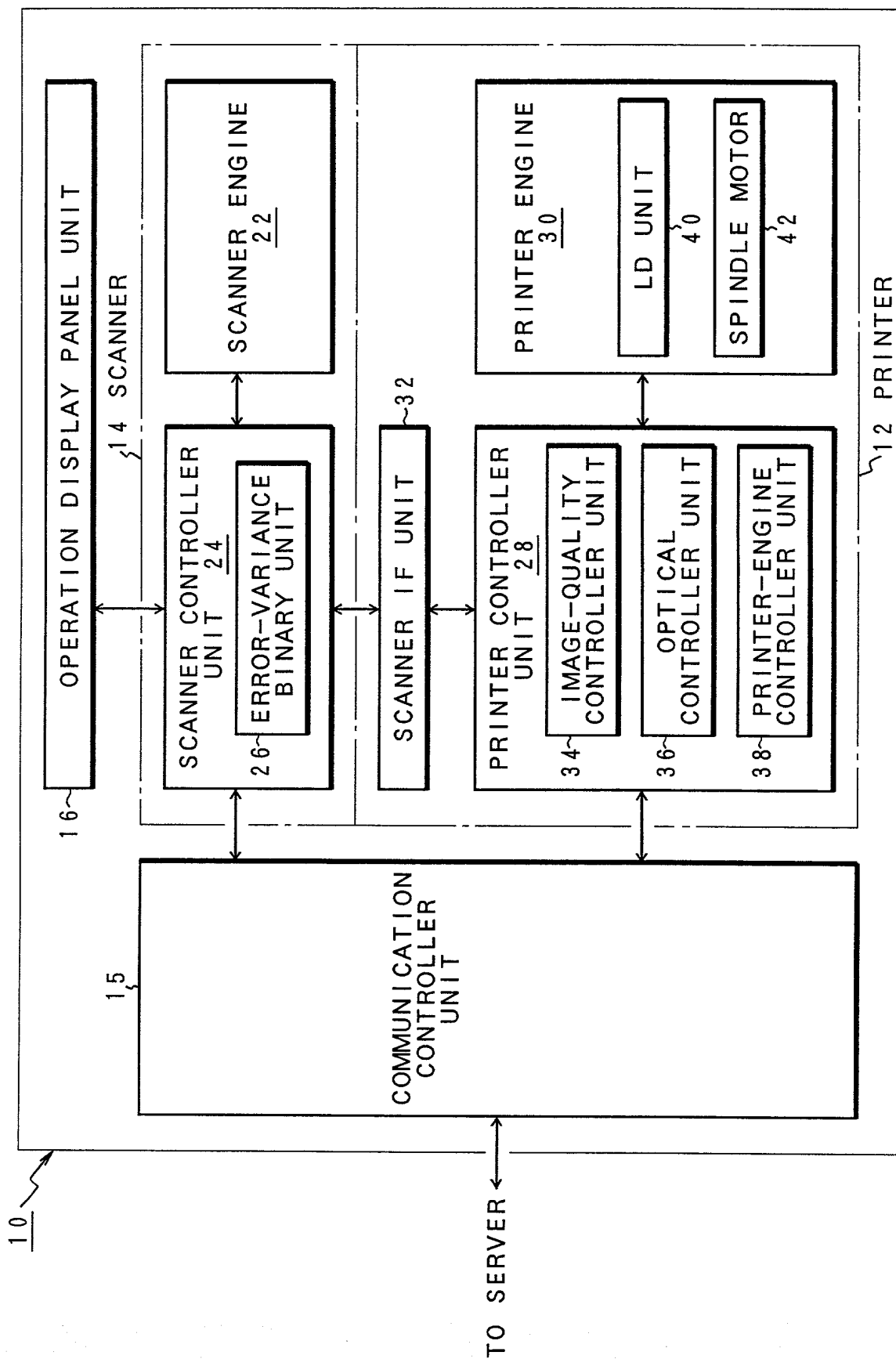
09835620-041701

FIG. 8



0935620-041701

FIG. 9



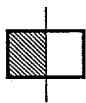
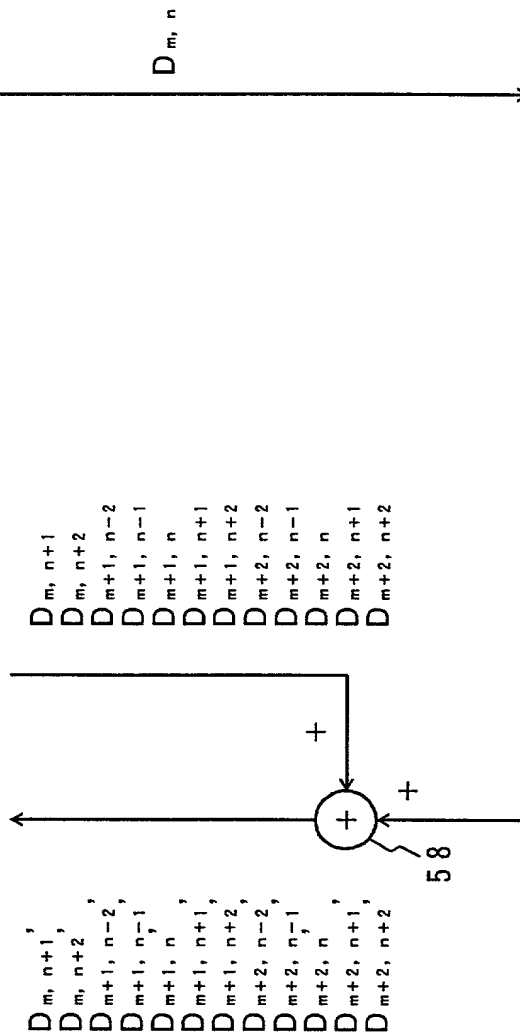


FIG. 10A

50 DATA LINE MEMORY

	$n-2^{\text{TH}}$ DOT	$n-1^{\text{TH}}$ DOT	n^{TH} DOT	$n+1^{\text{TH}}$ DOT	$n+2^{\text{TH}}$ DOT
m^{TH} LINE			$D_{m,n}$	$D_{m,n+1}$	$D_{m,n+2}$
$m+1^{\text{TH}}$ LINE	$D_{m+1,n-2}$	$D_{m+1,n-1}$	$D_{m+1,n}$	$D_{m+1,n+1}$	$D_{m+1,n+2}$
$m+2^{\text{TH}}$ LINE	$D_{m+2,n-2}$	$D_{m+2,n-1}$	$D_{m+2,n}$	$D_{m+2,n+1}$	$D_{m+2,n+2}$



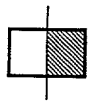


FIG. 10B

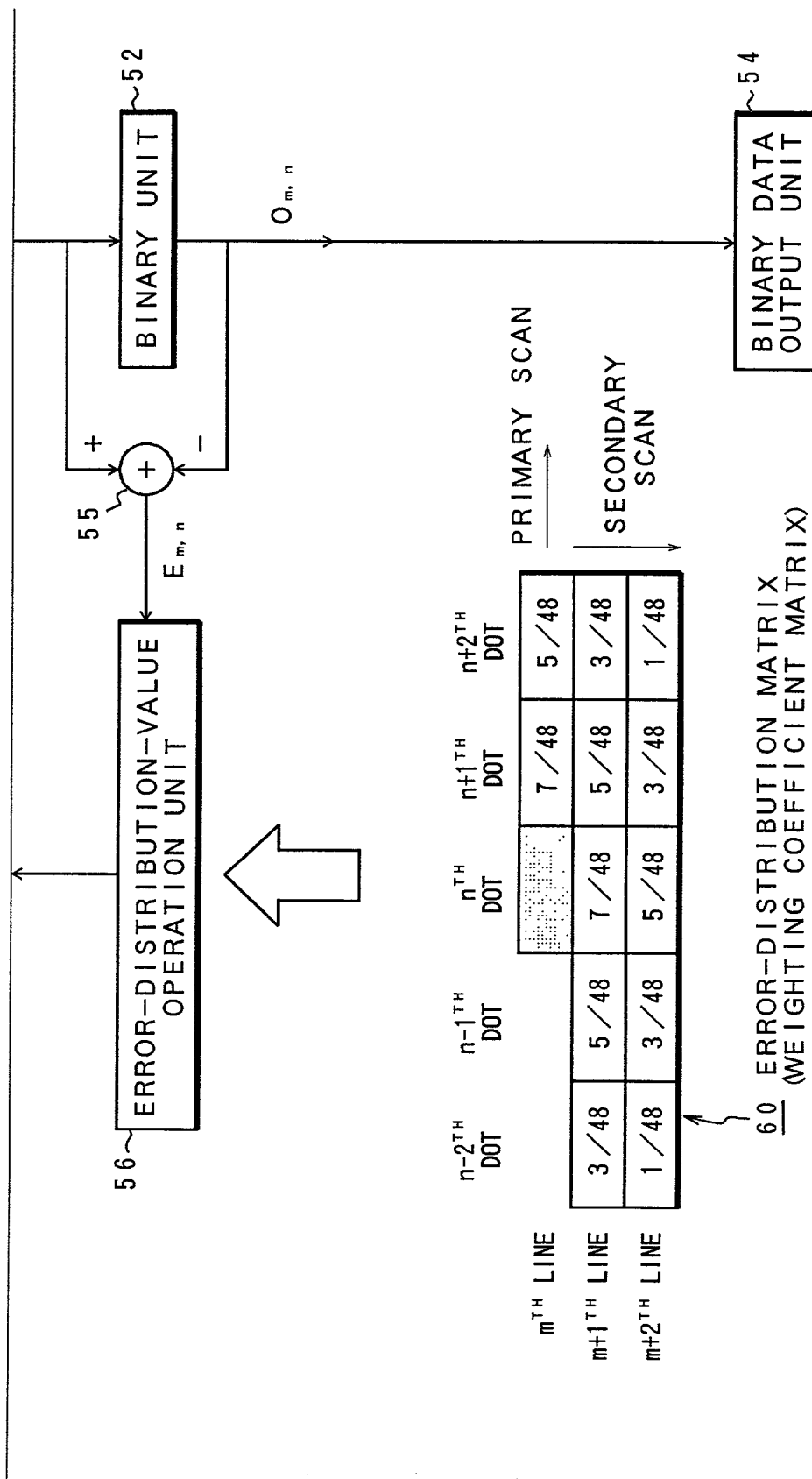


FIG. 11A



FIG. 11B

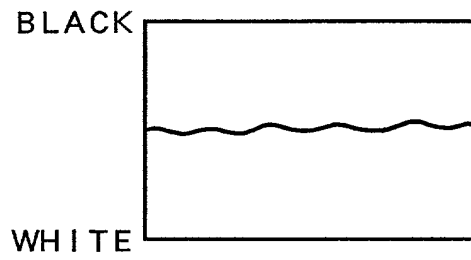


FIG. 11C

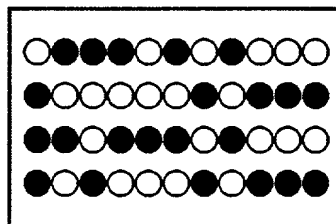


FIG. 11A

FIG. 12A

ORIGINAL PICTURE
IMAGE

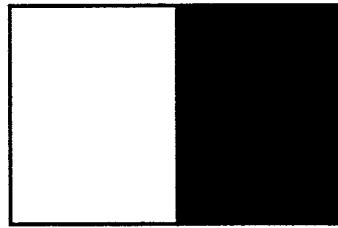


FIG. 12B

MULTIVALUE DENSITY
LEVEL

BLACK

WHITE

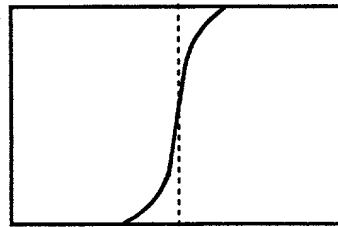
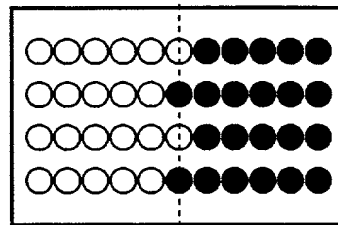


FIG. 12C

OUTPUT IMAGE



093560-041701

FIG. 13A

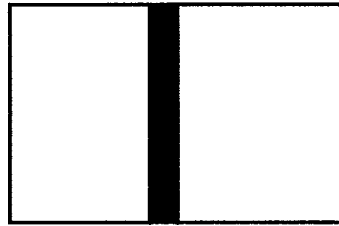


FIG. 13B

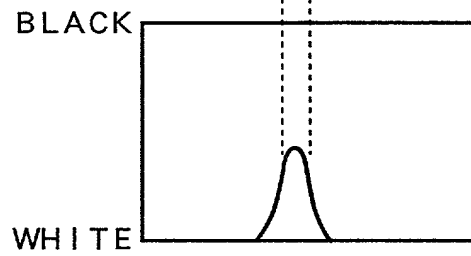
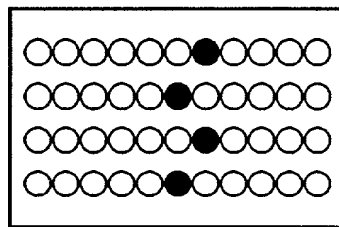


FIG. 13C



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FIG. 14

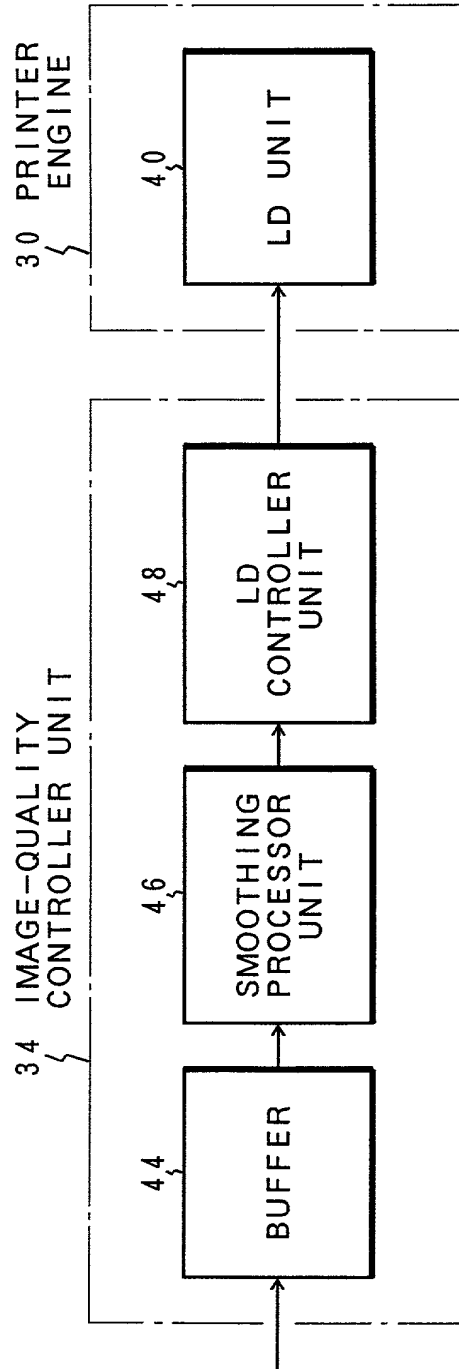


FIG. 15

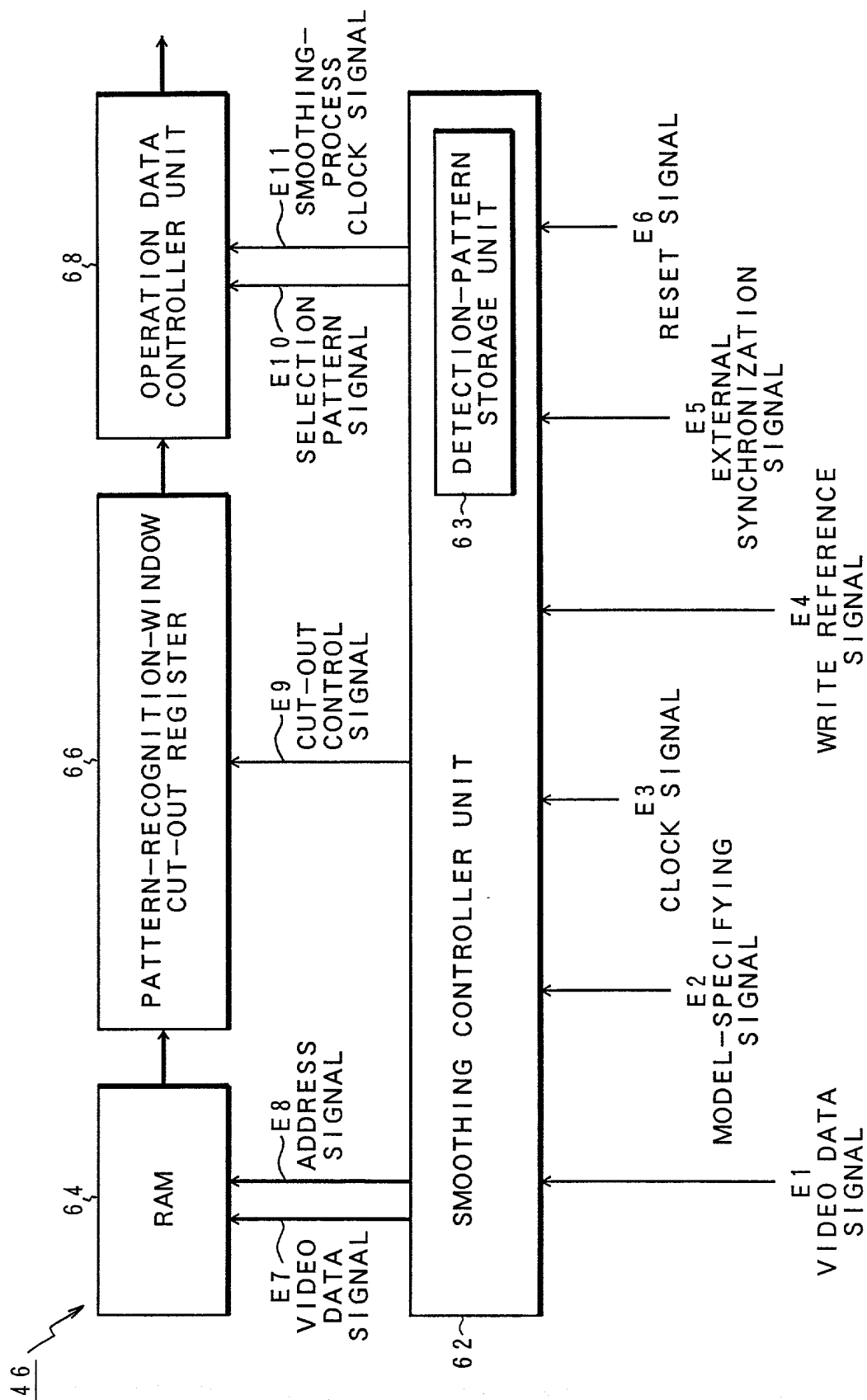
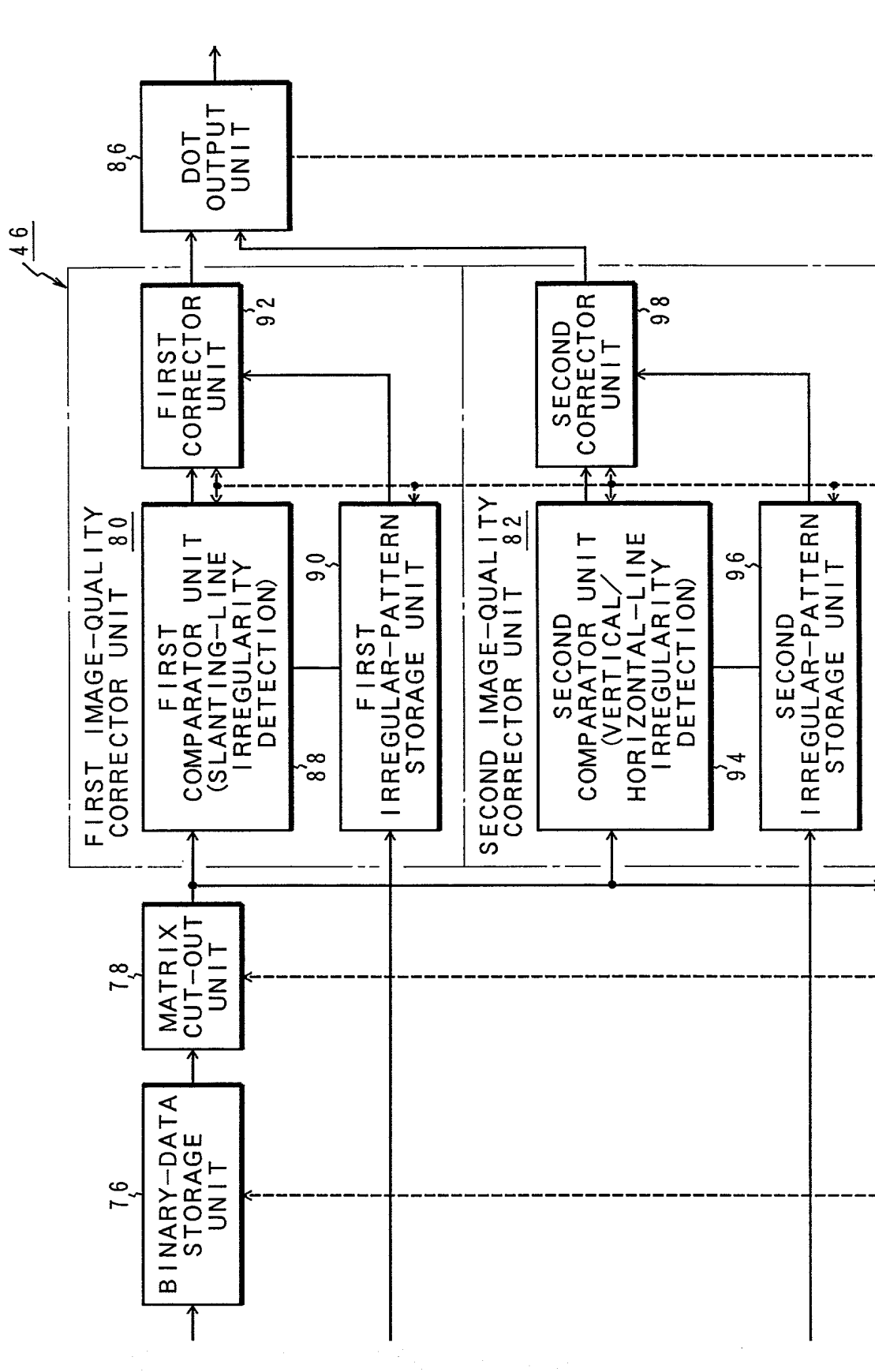


FIG. 17A



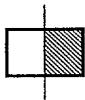


FIG. 17B

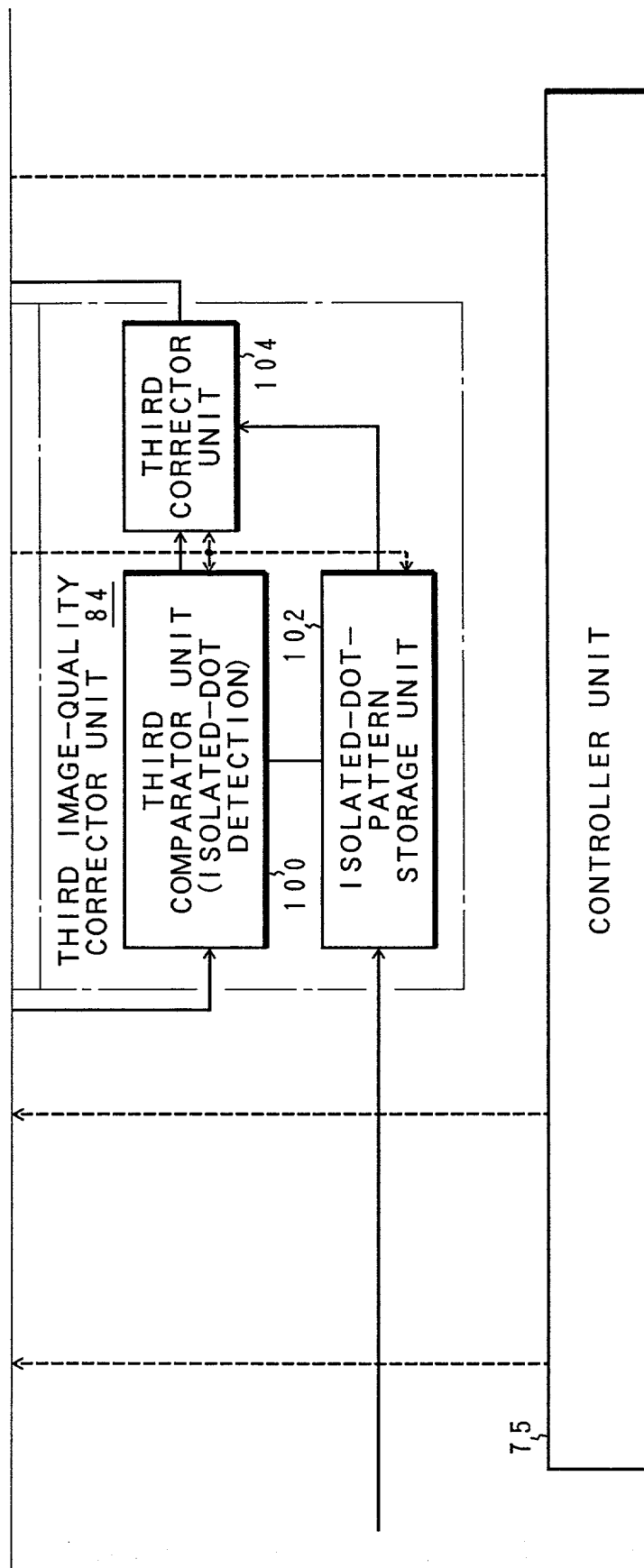


FIG. 18A

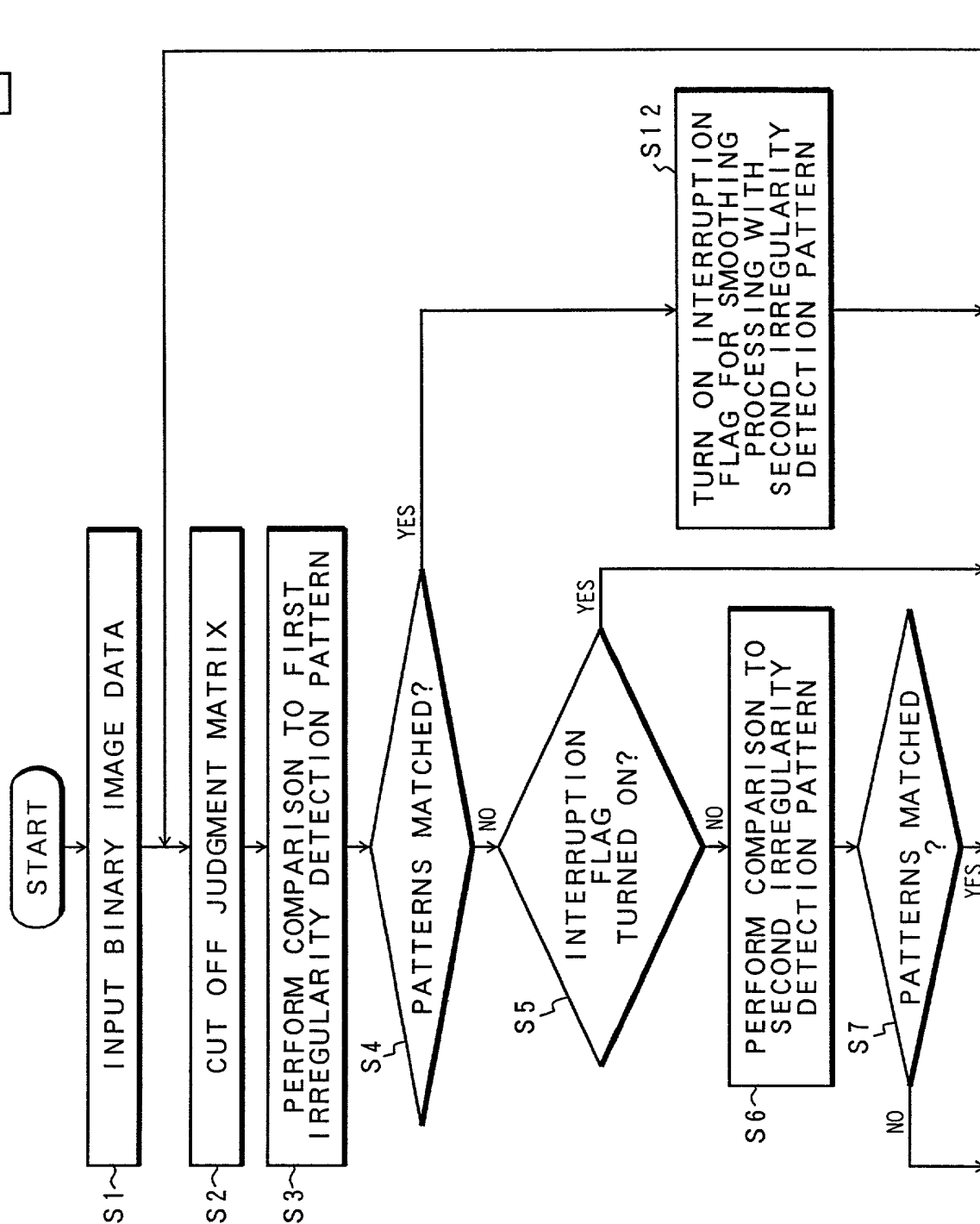




FIG. 18B

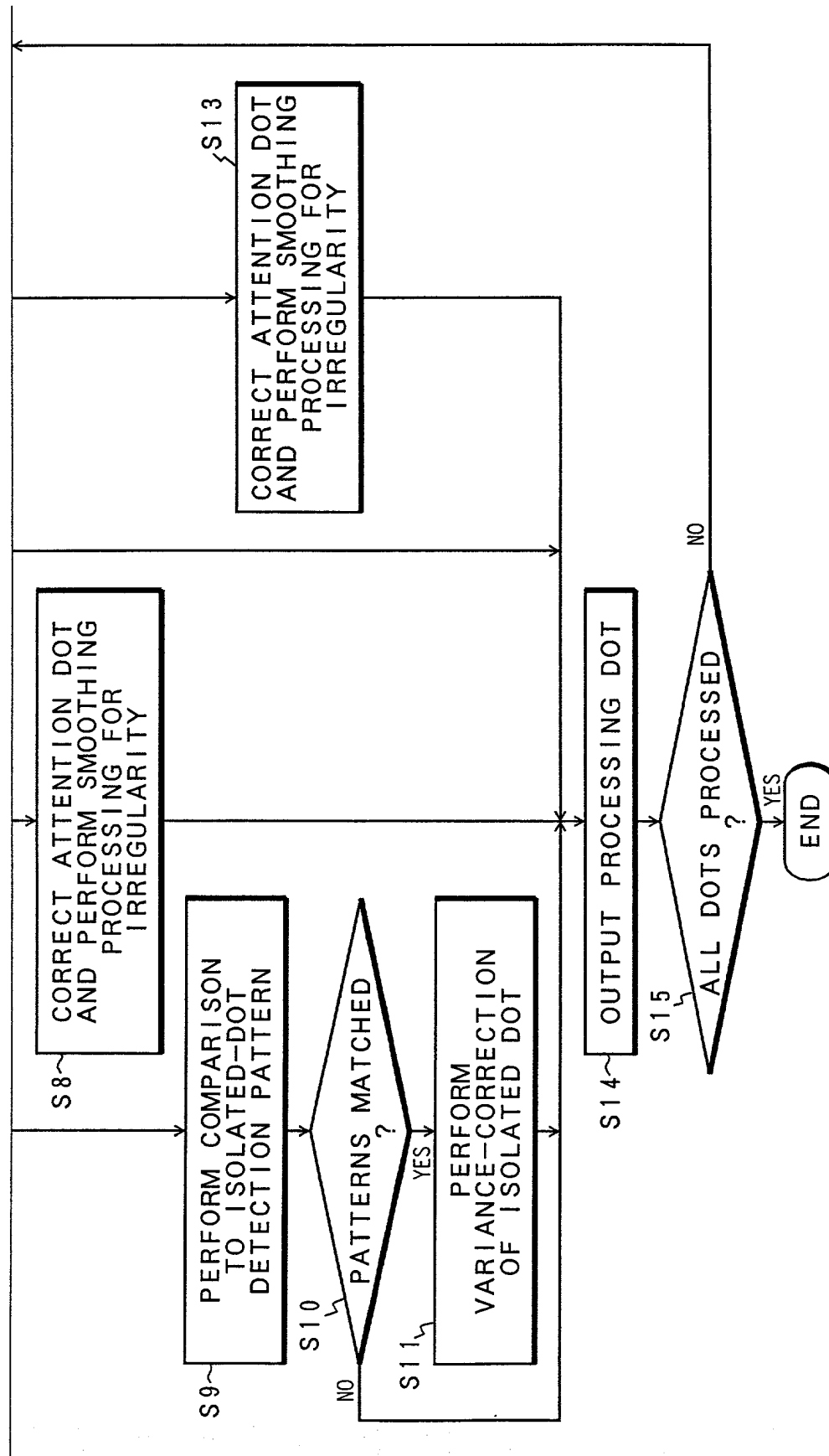
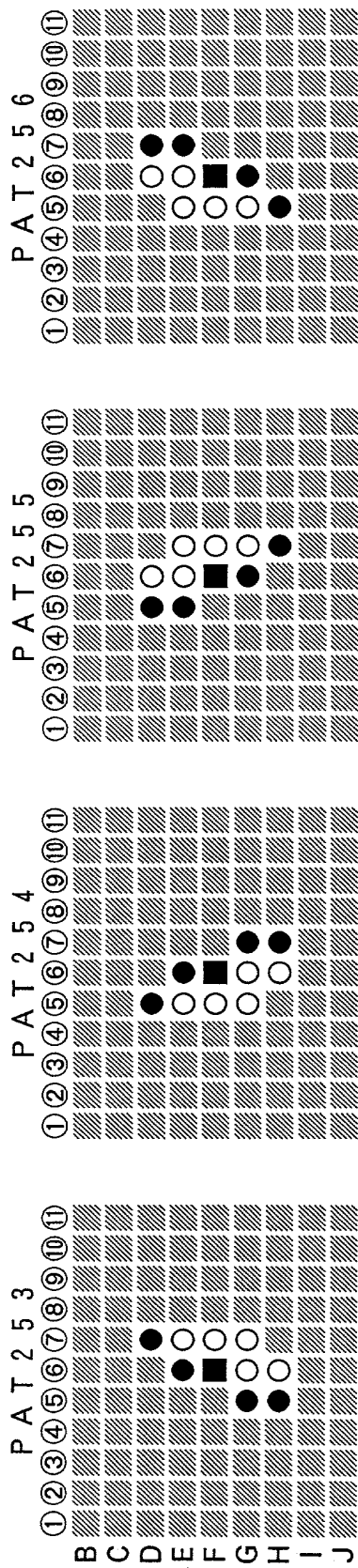


FIG. 19

STORAGE UNITS	PATTERN CONTENTS	BINARY METHODS
FIRST IRREGULAR-PATTERN STORAGE UNIT	SLANTING-LINE IRREGULARITY DETECTION PATTERN	SIMPLE BINARY/DITHER
SECOND IRREGULAR-PATTERN STORAGE UNIT	VERTICAL/HORIZONTAL-LINE IRREGULARITY DETECTION PATTERN	ERROR VARIANCE
	THIN-LINE PATCHY DETECTION PATTERN	ERROR VARIANCE
ISOLATED-DOT-PATTERN STORAGE UNIT	ISOLATED-DOT DETECTION PATTERN	ERROR VARIANCE

FIG. 20

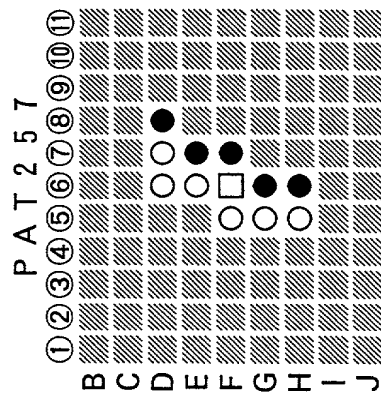


① 00 1110 00
② 00 1100 00
③ 00 1111 00

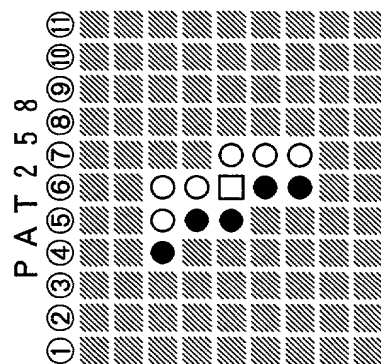
00 0111 00
00 0011 00
00 1111 00

00 1110 00
00 1100 00
00 1111 00

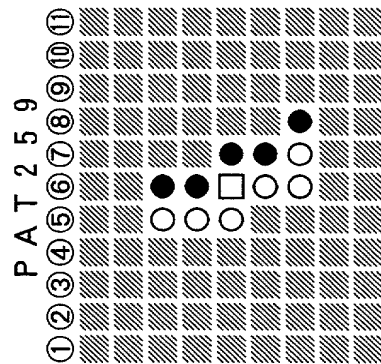
00 0111 00
00 0011 00
00 1111 00



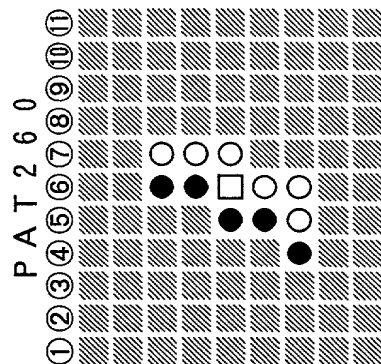
① 00 0000 00
② 00 0001 00
③ 00 0011 00



00 0000 00
00 1000 00
00 1100 00



00 0000 00
00 0001 00
00 0011 00



00 0000 00
00 1000 00
00 1100 00

FIG. 21

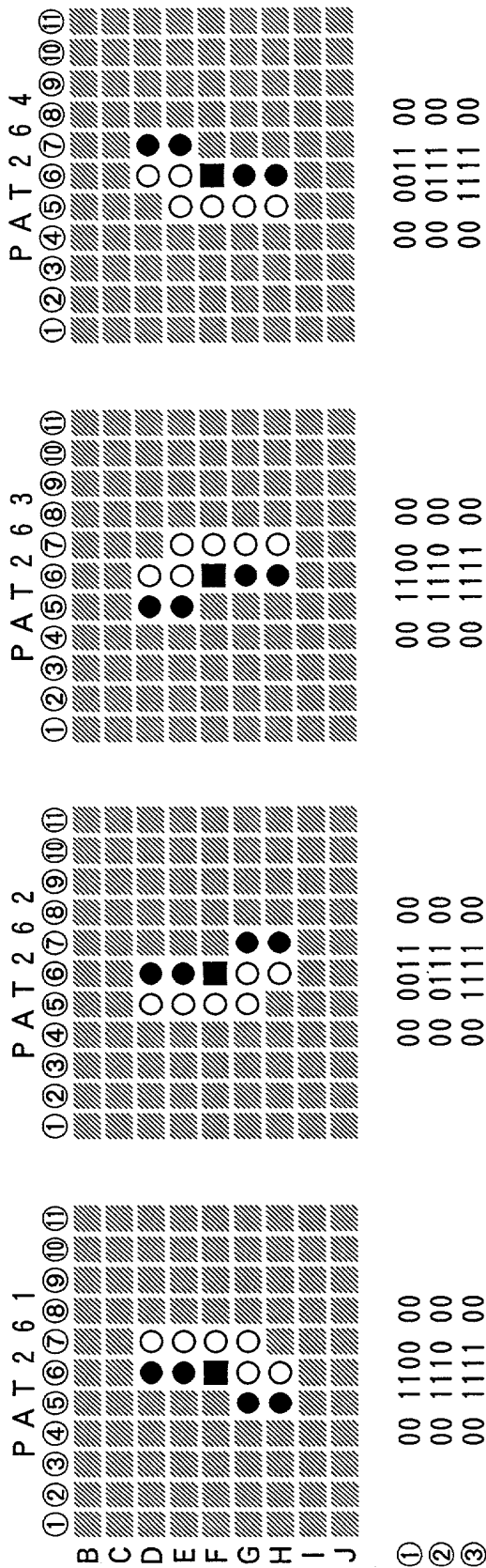


FIG. 22A

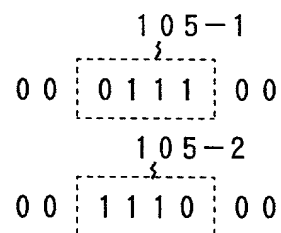
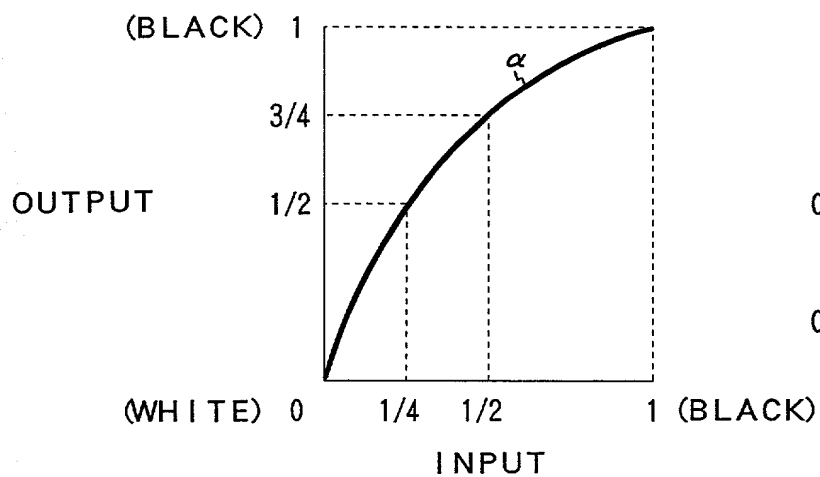


FIG. 22B

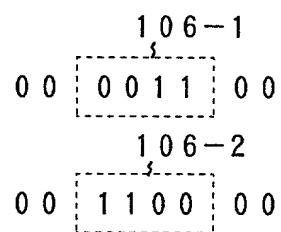
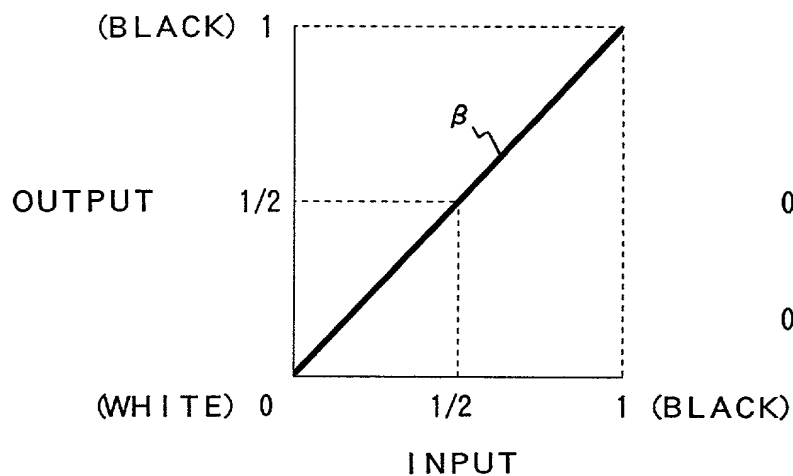


FIG. 22C

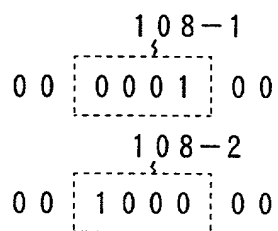
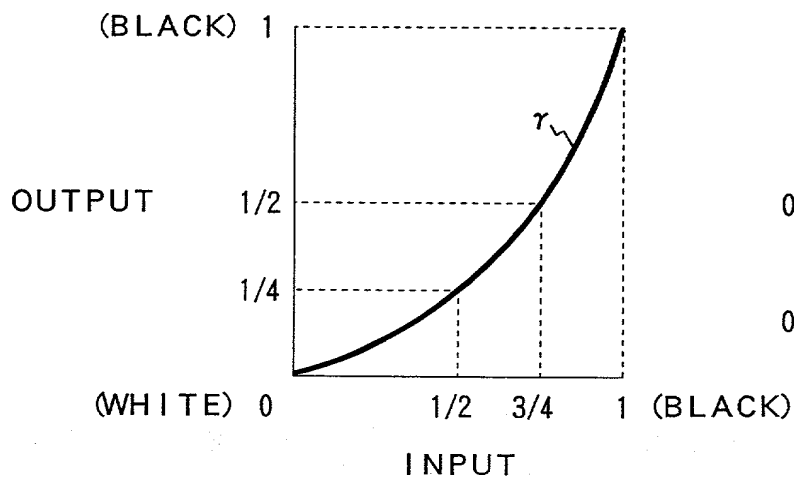
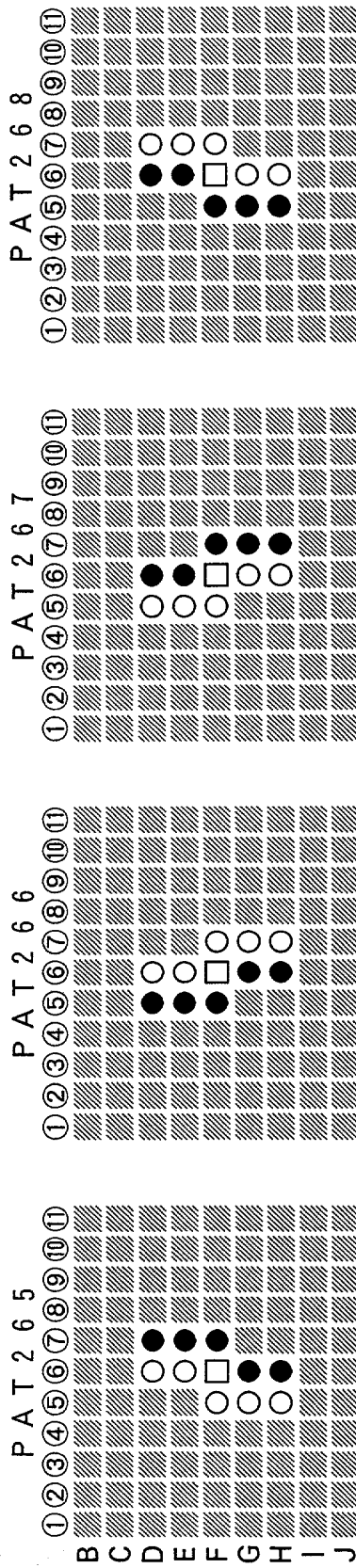


FIG. 23

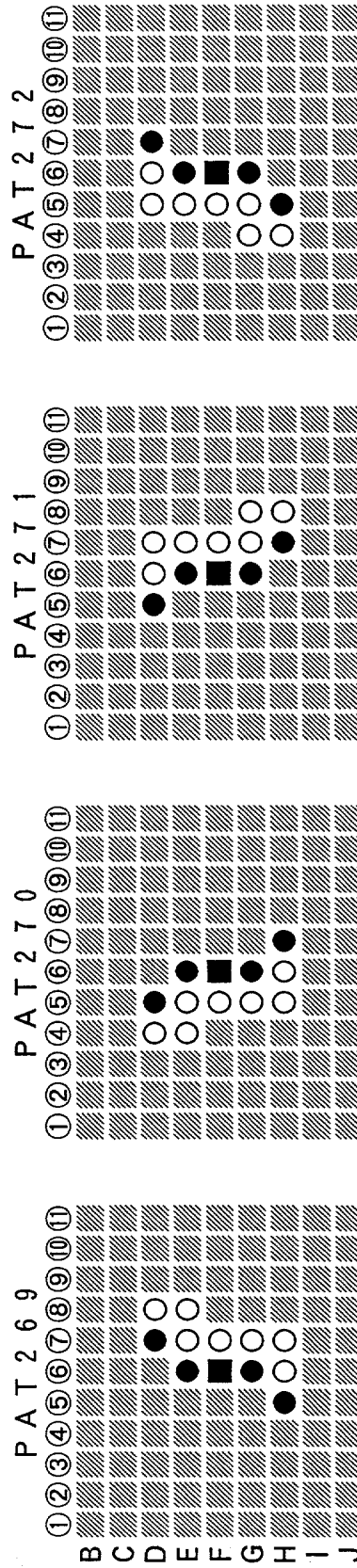


① 00 0001 00
② 00 0011 00
③ 00 0111 00

00 1000 00
00 1100 00
00 1110 00

00 0001 00
00 0011 00
00 0111 00

00 1000 00
00 1100 00
00 1110 00



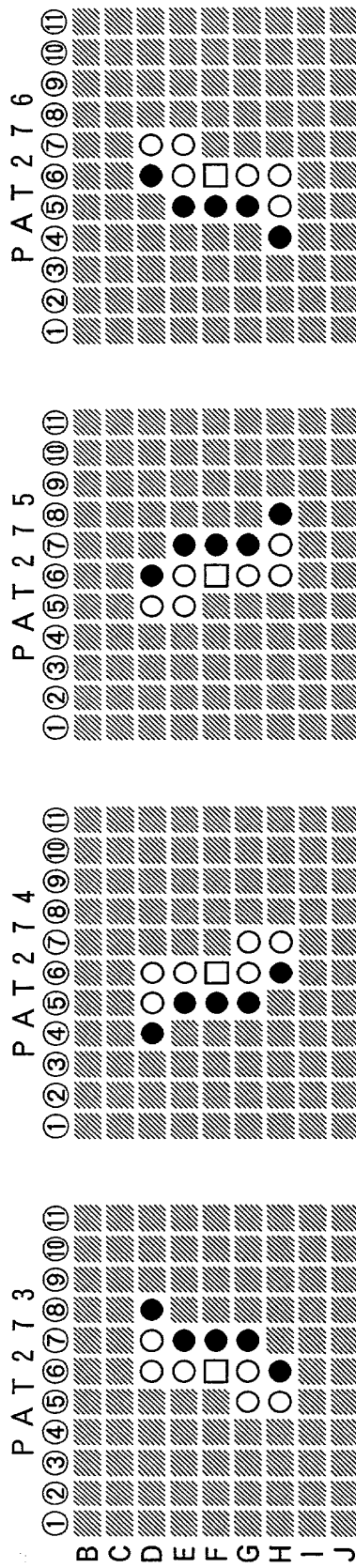
① 00 1111 00
② 00 1110 00
③ 00 0110 00

00 1111 00
00 0111 00
00 0110 00

00 1111 00
00 1110 00
00 0110 00

00 1111 00
00 0111 00
00 0110 00

FIG. 24

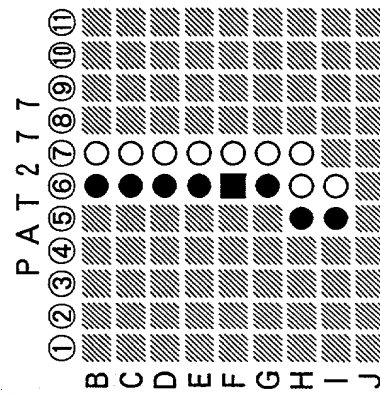


① 00 0000 00
② 00 0001 00
③ 00 0011 00

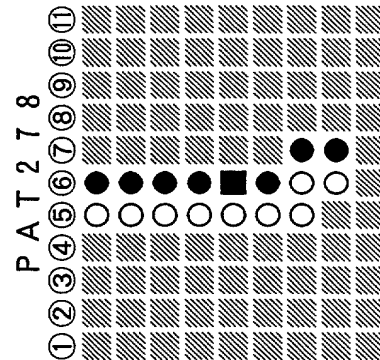
00 0000 00
00 1000 00
00 1100 00

00 0000 00
00 0001 00
00 0011 00

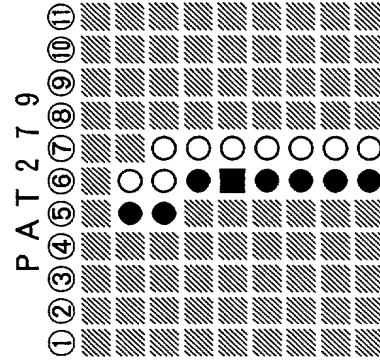
00 0000 00
00 1000 00
00 1100 00



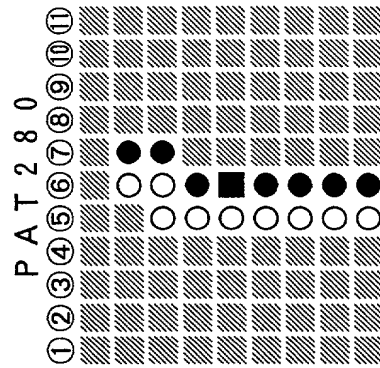
① 00 1100 00
② 00 1110 00
③ 00 1111 00



00 0011 00
00 0111 00
00 1111 00

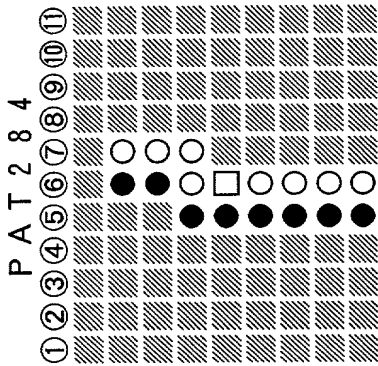


00 1100 00
00 1110 00
00 1111 00

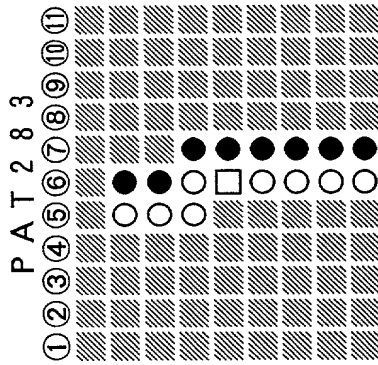


00 0011 00
00 0111 00
00 1111 00

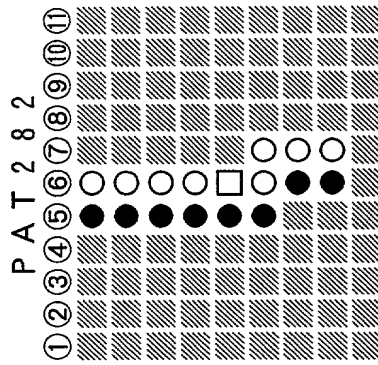
FIG. 25



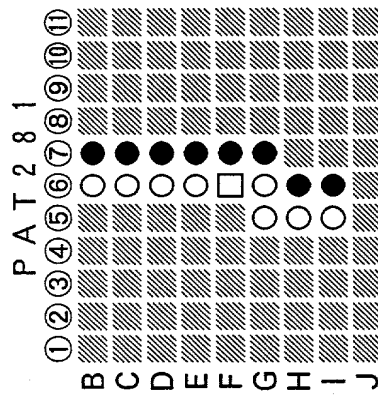
00 1000 00
00 1100 00
00 1110 00



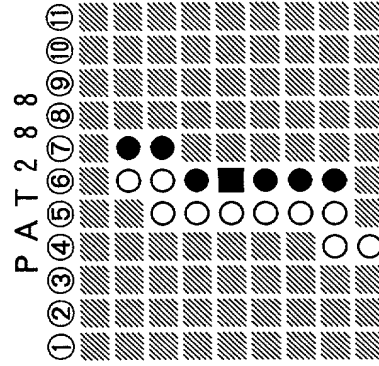
00 0001 00
00 0011 00
00 0111 00



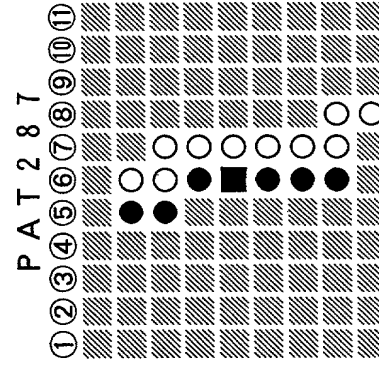
00 1000 00
00 1100 00
00 1110 00



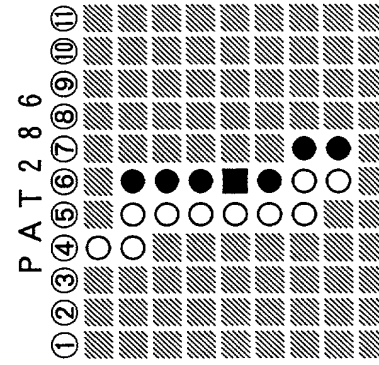
00 0001 00
00 0011 00
00 0111 00



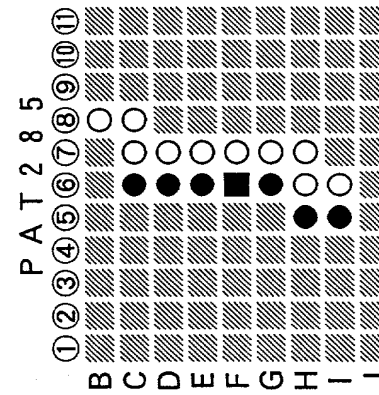
00 0011 00
00 0111 00
00 1111 00



00 1100 00
00 1110 00
00 1111 00

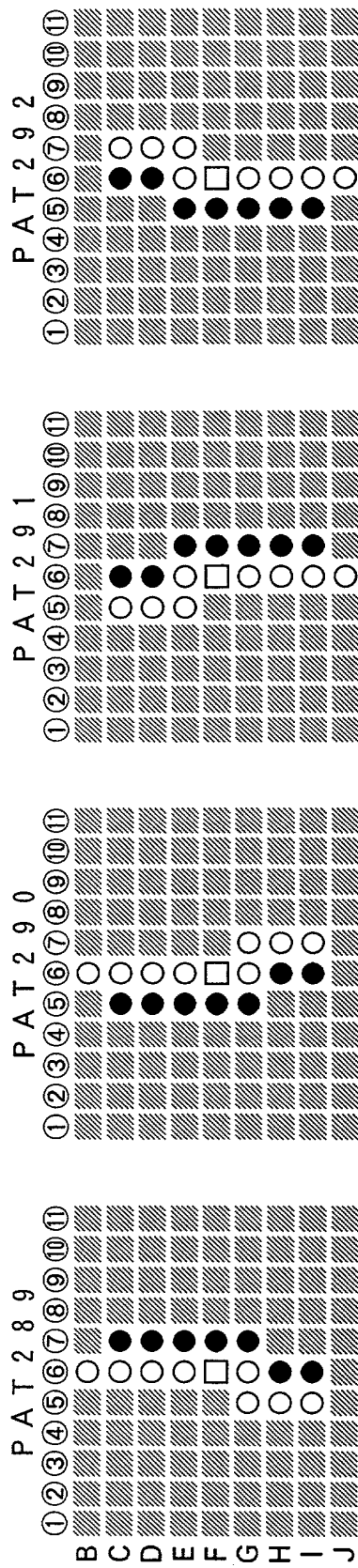


00 0011 00
00 0111 00
00 1111 00



00 1100 00
00 1110 00
00 1111 00

FIG. 26

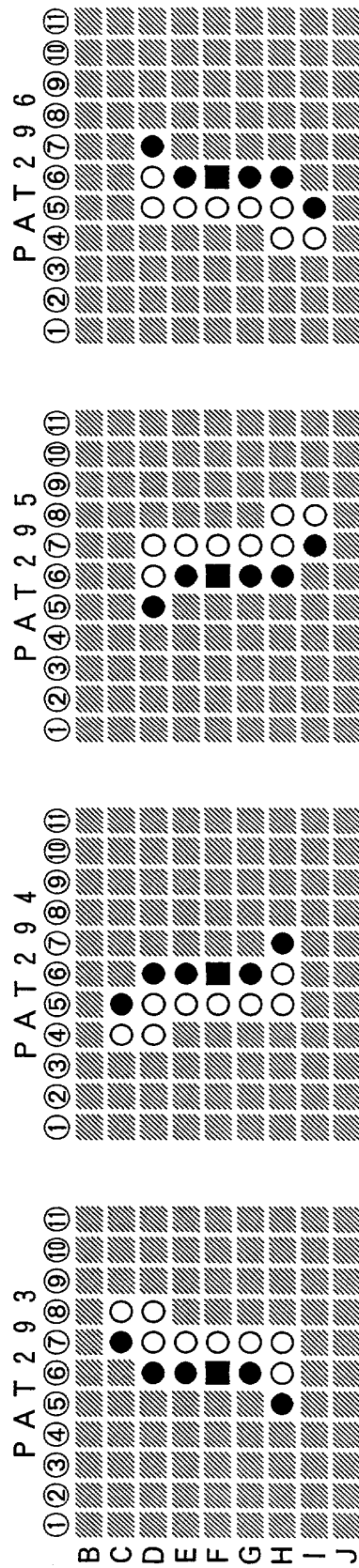


① 00 0001 00
② 00 0011 00
③ 00 0111 00

00 1000 00
00 1100 00
00 1110 00

00 0001 00
00 0011 00
00 0111 00

00 1000 00
00 1100 00
00 1110 00



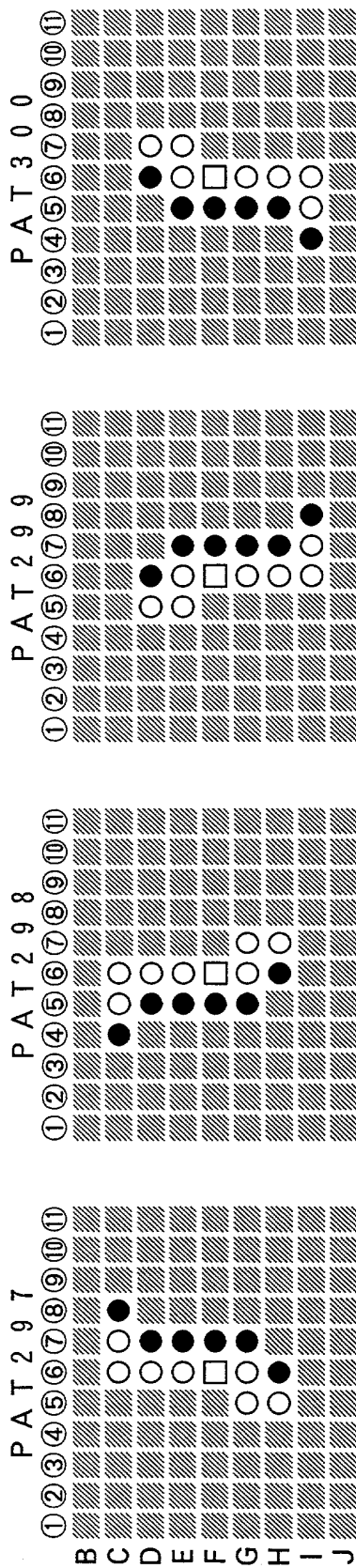
① 00 1100 00
② 00 1110 00
③ 00 1111 00

00 0011 00
00 0111 00
00 1111 00

00 1100 00
00 1110 00
00 1111 00

00 0011 00
00 0111 00
00 1111 00

FIG. 27

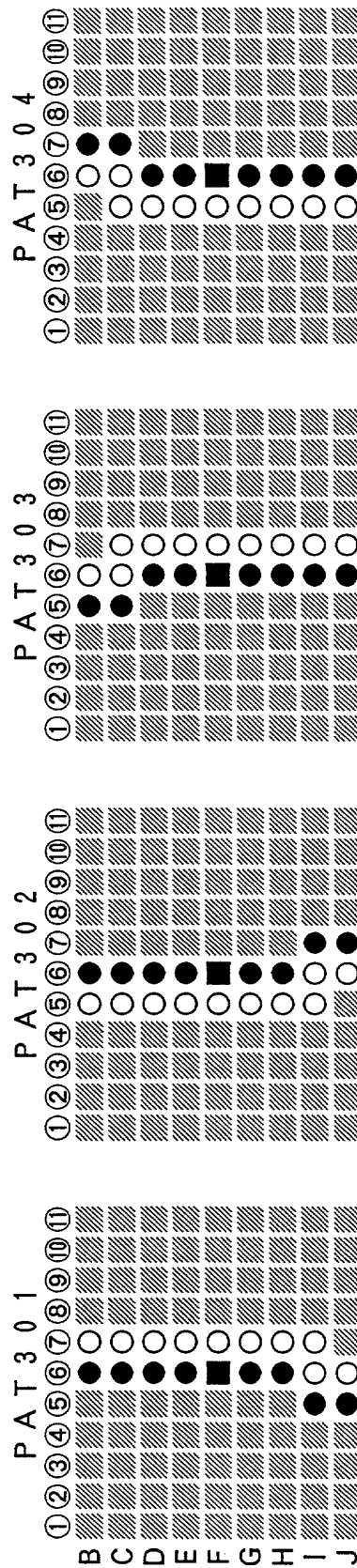


① 00 0001 00
② 00 0011 00
③ 00 0111 00

00 1000 00
00 1100 00
00 1110 00

00 0001 00
00 0011 00
00 0111 00

00 1000 00
00 1100 00
00 1110 00



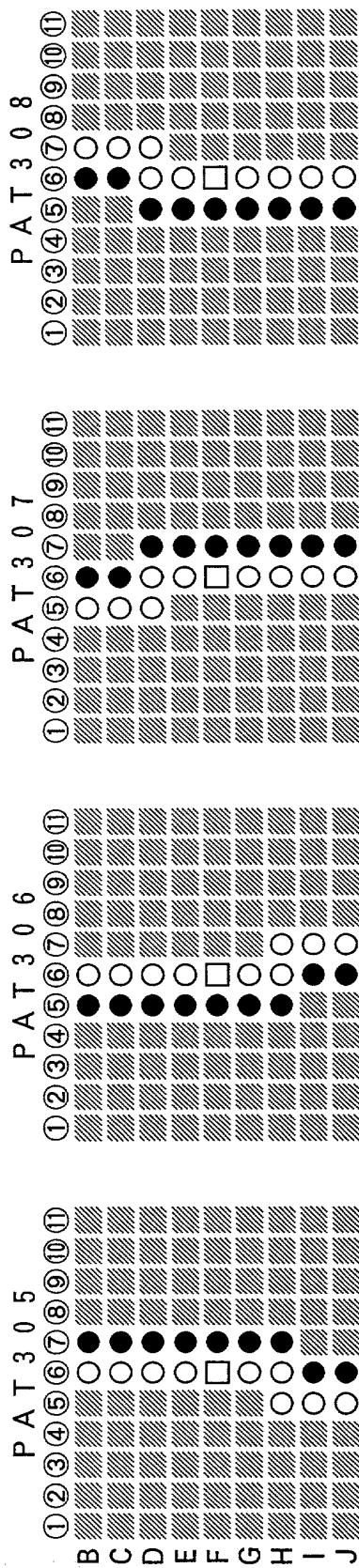
① 00 1100 00
② 00 1110 00
③ 00 1111 00

00 0011 00
00 0111 00
00 1111 00

00 1100 00
00 1110 00
00 1111 00

00 0011 00
00 0111 00
00 1111 00

FIG. 28

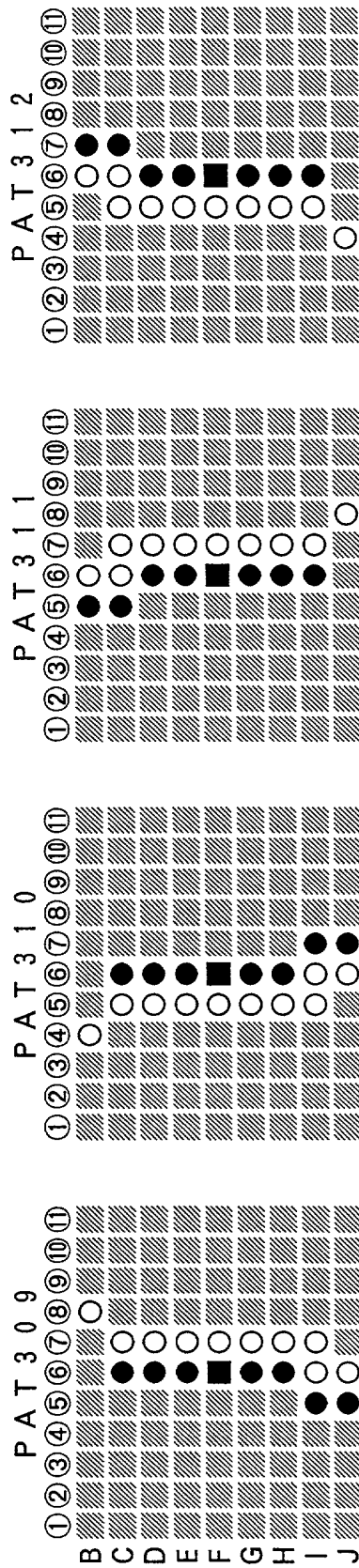


① 00 0001 00
② 00 0011 00
③ 00 0111 00

00 1000 00
00 1100 00
00 1110 00

00 0001 00
00 0011 00
00 0111 00

00 1000 00
00 1100 00
00 1110 00



① 00 1110 00
② 00 1100 00
③ 00 1111 00

00 0111 00
00 0011 00
00 1111 00

00 1110 00
00 1100 00
00 1111 00

00 0111 00
00 0011 00
00 1111 00

FIG. 29

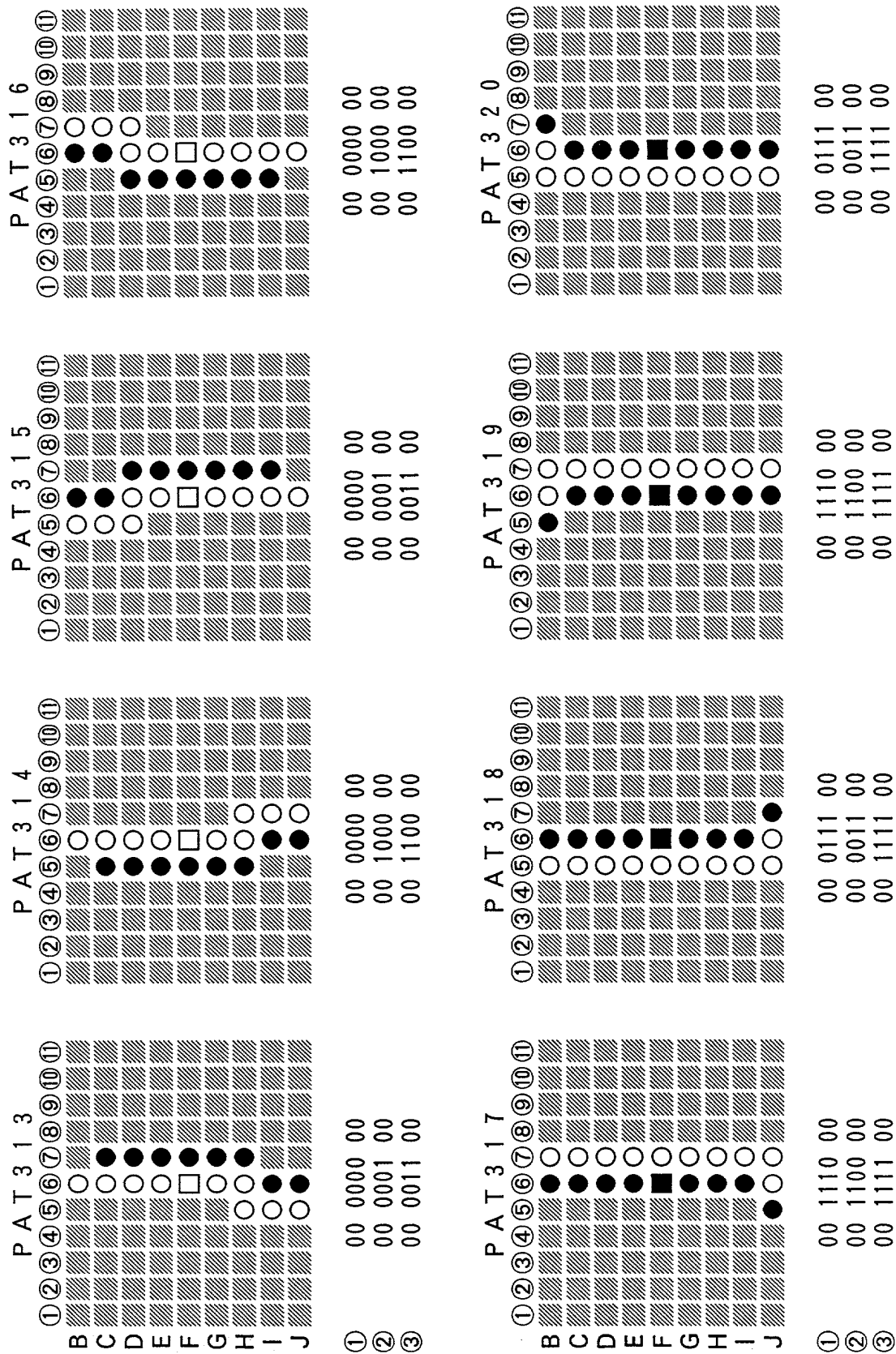


FIG. 30

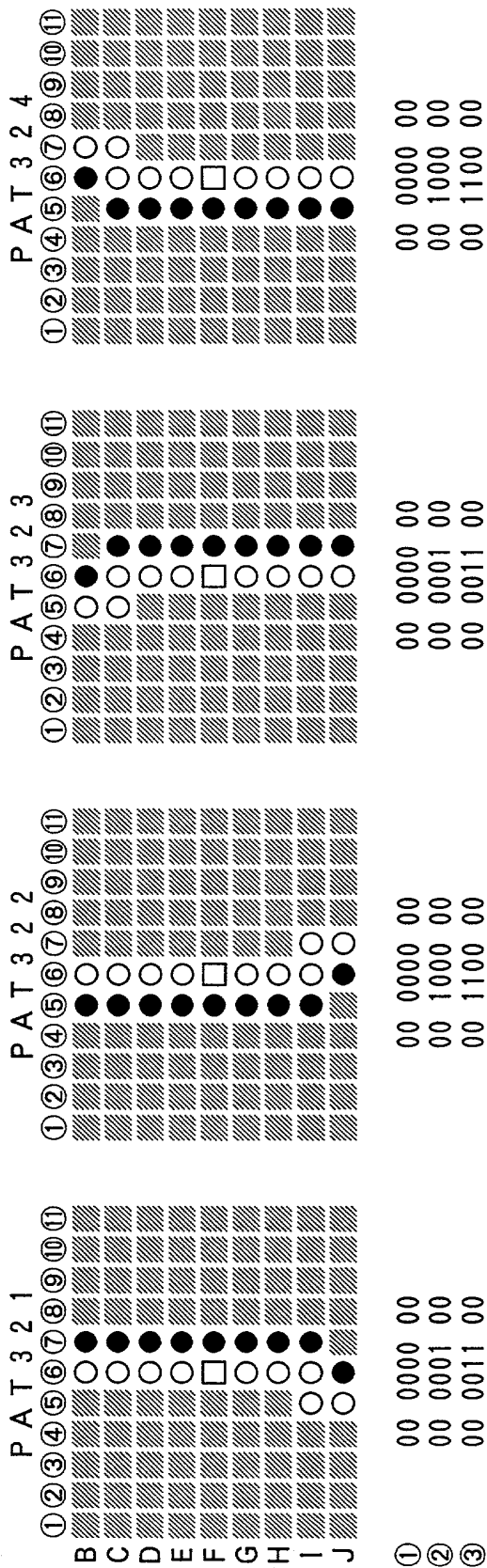


FIG. 31

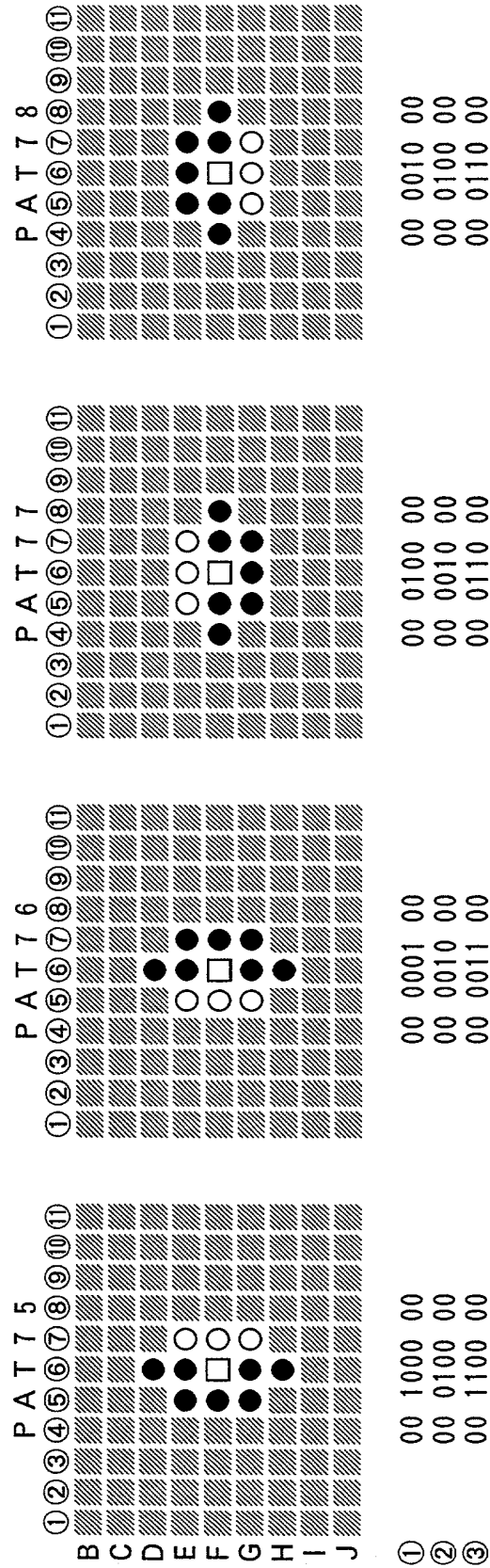


FIG. 33

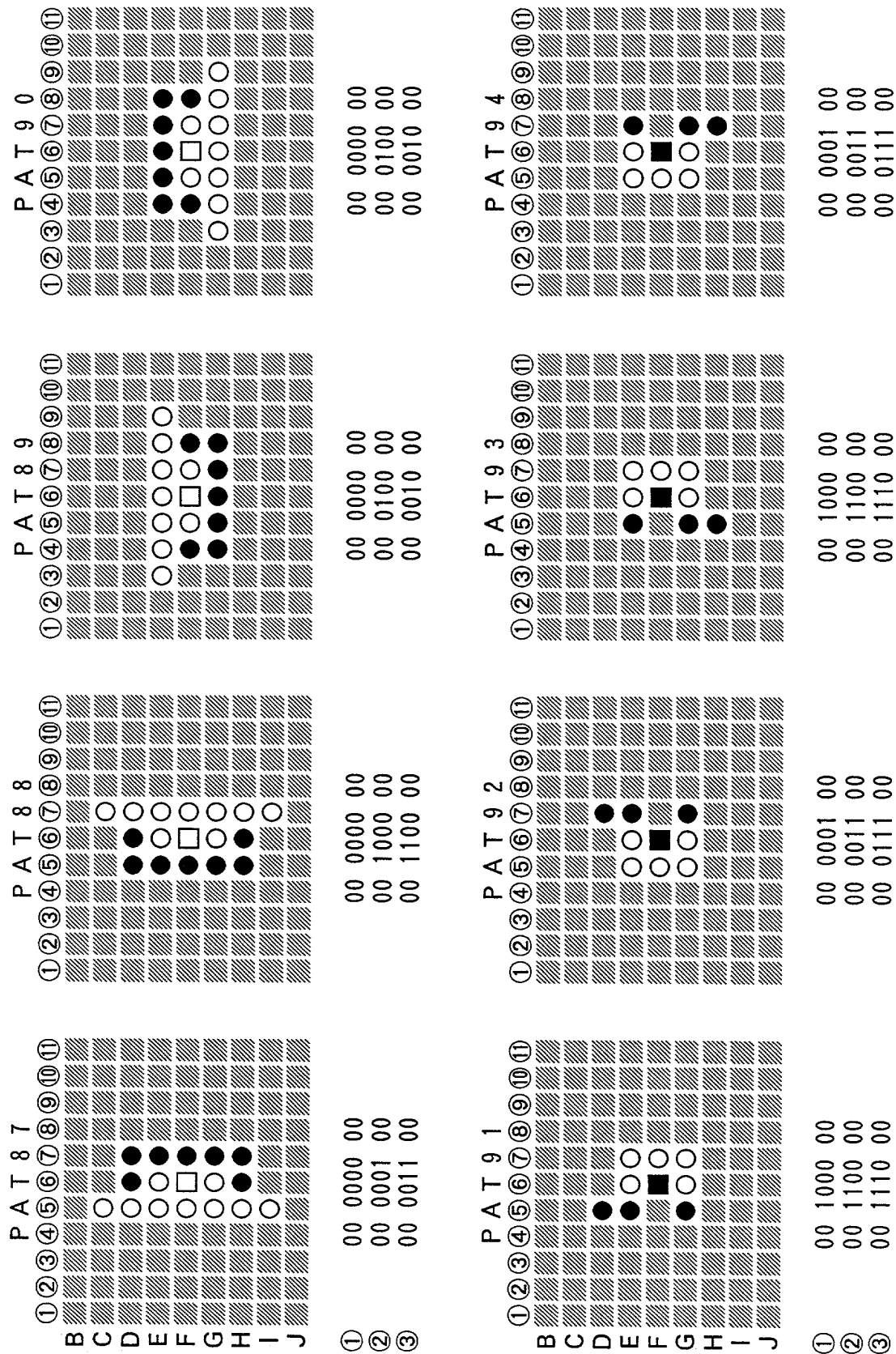
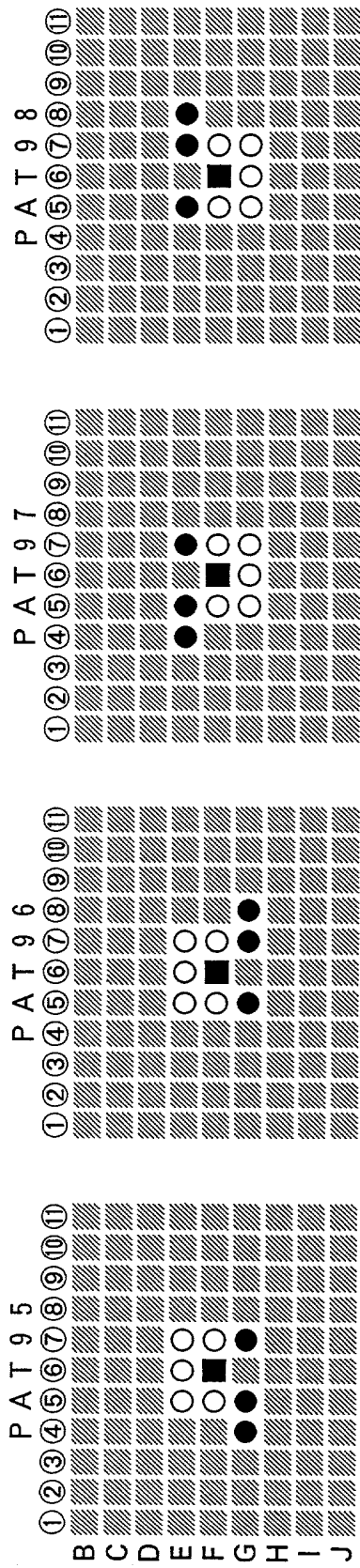


FIG. 34

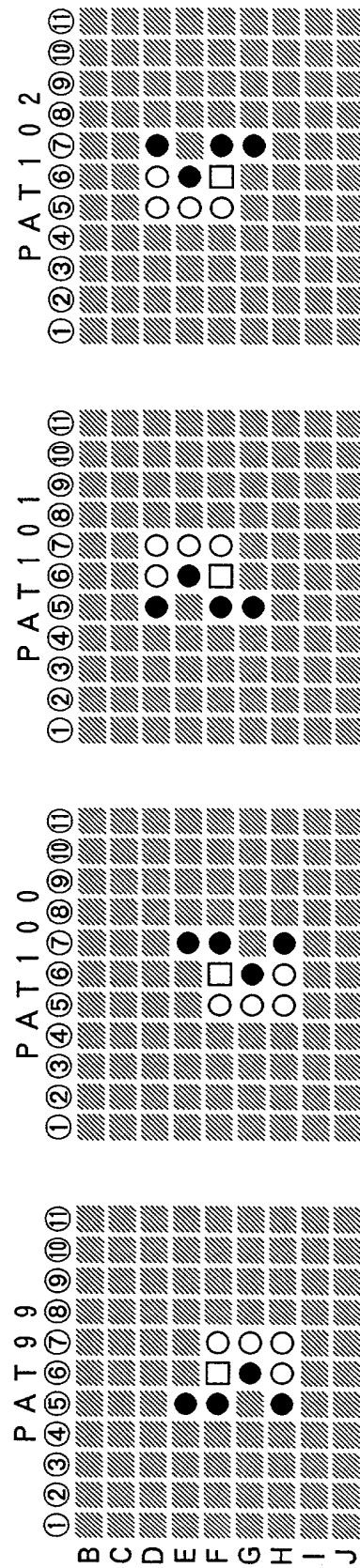


① 00 0100 00
② 00 0110 00
③ 00 1110 00

00 0010 00
00 0110 00
00 0111 00

00 0100 00
00 0110 00
00 1110 00

00 0010 00
00 0110 00
00 0111 00



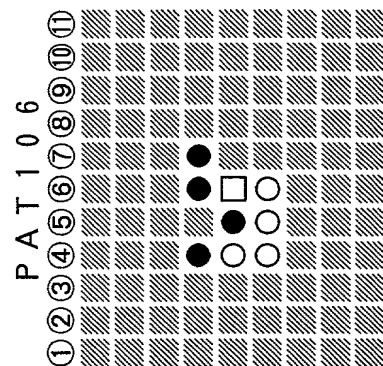
① 00 0000 00
② 00 1000 00
③ 00 1100 00

00 0000 00
00 0001 00
00 0011 00

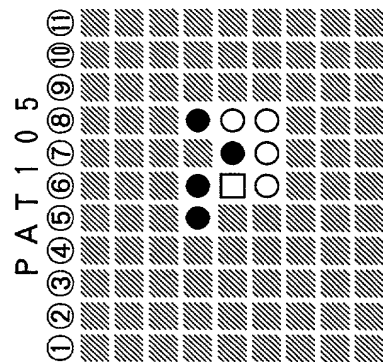
00 0000 00
00 1000 00
00 1100 00

00 0000 00
00 0001 00
00 0011 00

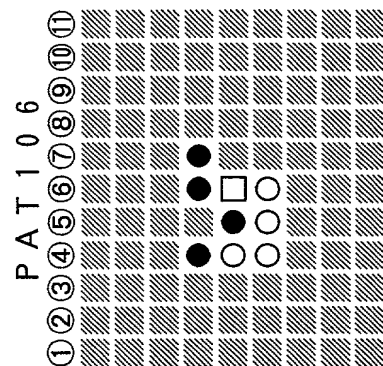
FIG. 35



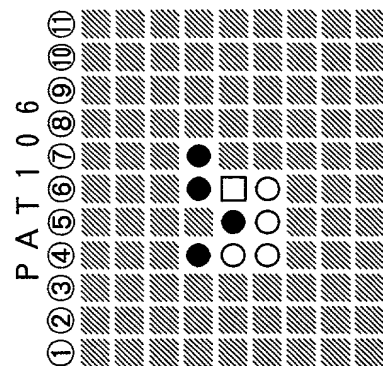
① 00 0000 00
② 00 0010 00
③ 00 0110 00



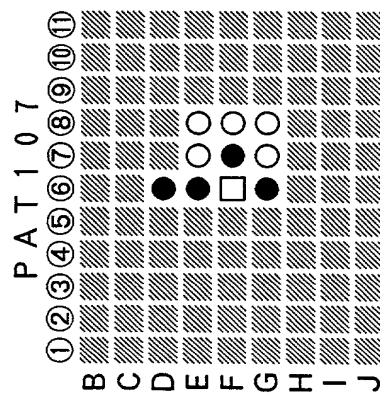
00 0000 00
00 0100 00
00 0110 00



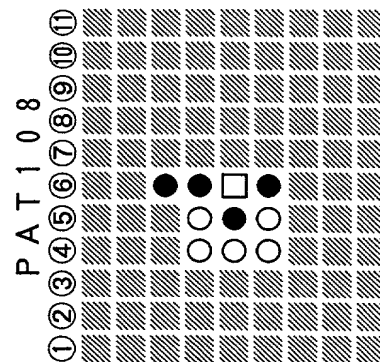
00 0000 00
00 0010 00
00 0110 00



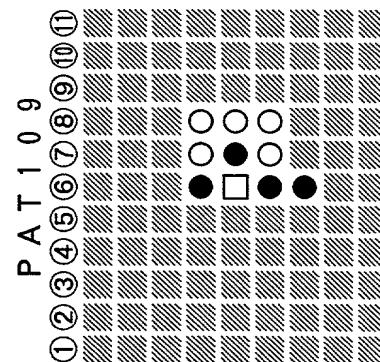
00 0000 00
00 0100 00
00 0110 00



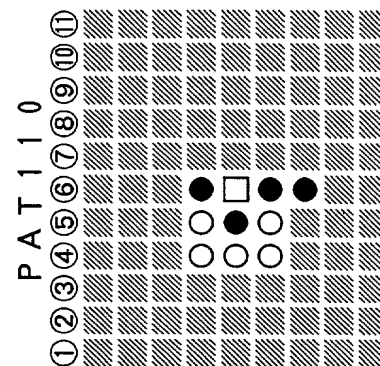
① 00 0000 00
② 00 0001 00
③ 00 0011 00



00 0000 00
00 1000 00
00 1100 00



00 0000 00
00 0001 00
00 0011 00



00 0000 00
00 1000 00
00 1100 00

FIG. 36

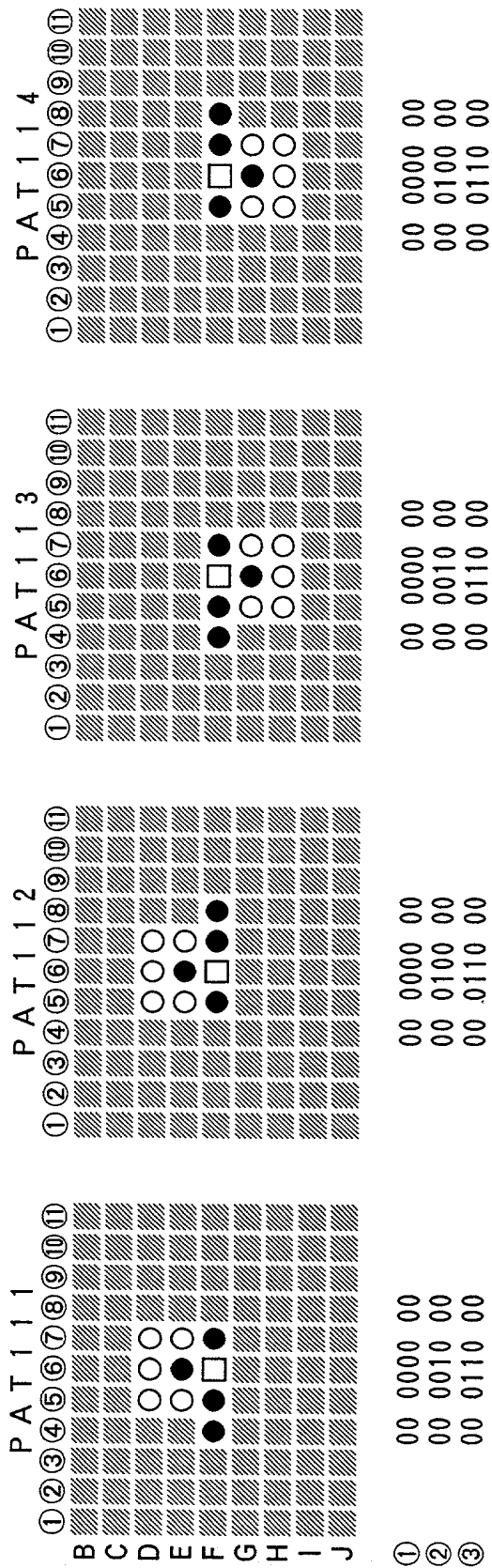
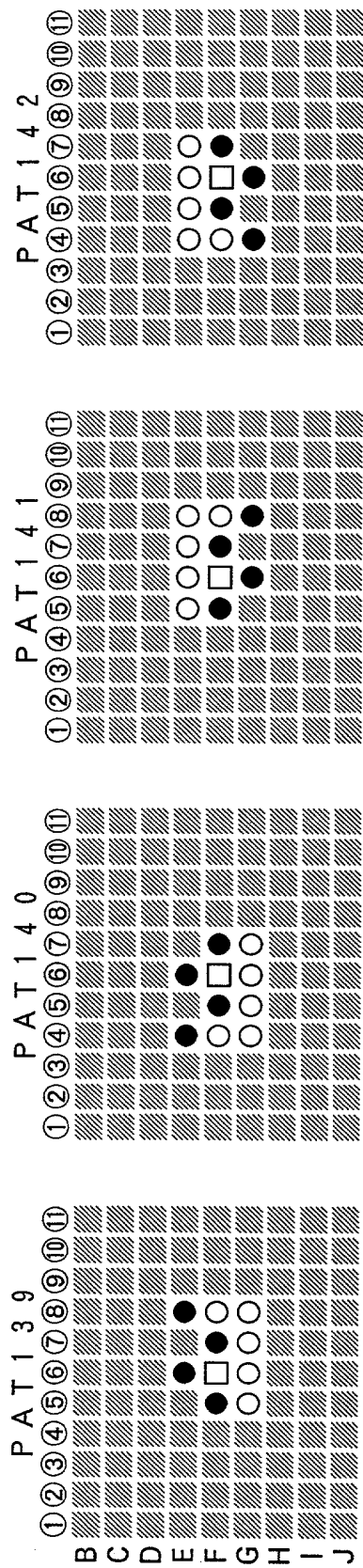


FIG. 37

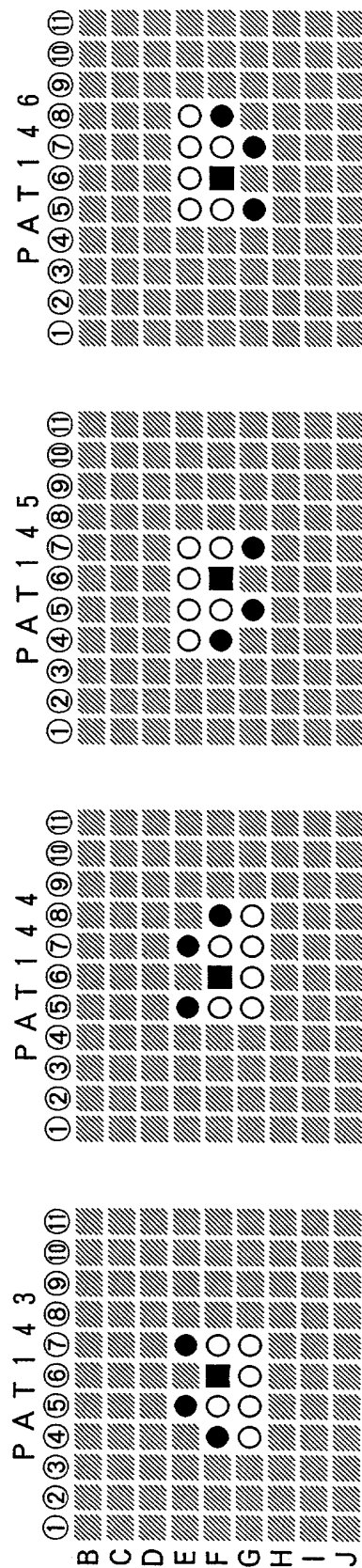


① 00 0000 00
② 00 0010 00
③ 00 0110 00

00 0000 00
00 0100 00
00 0110 00

00 0000 00
00 0010 00
00 0110 00

00 0000 00
00 0100 00
00 0110 00



① 00 0100 00
② 00 0110 00
③ 00 1110 00

00 0010 00
00 0110 00
00 0111 00

00 0100 00
00 0110 00
00 1110 00

00 0010 00
00 0110 00
00 0111 00

FIG. 38

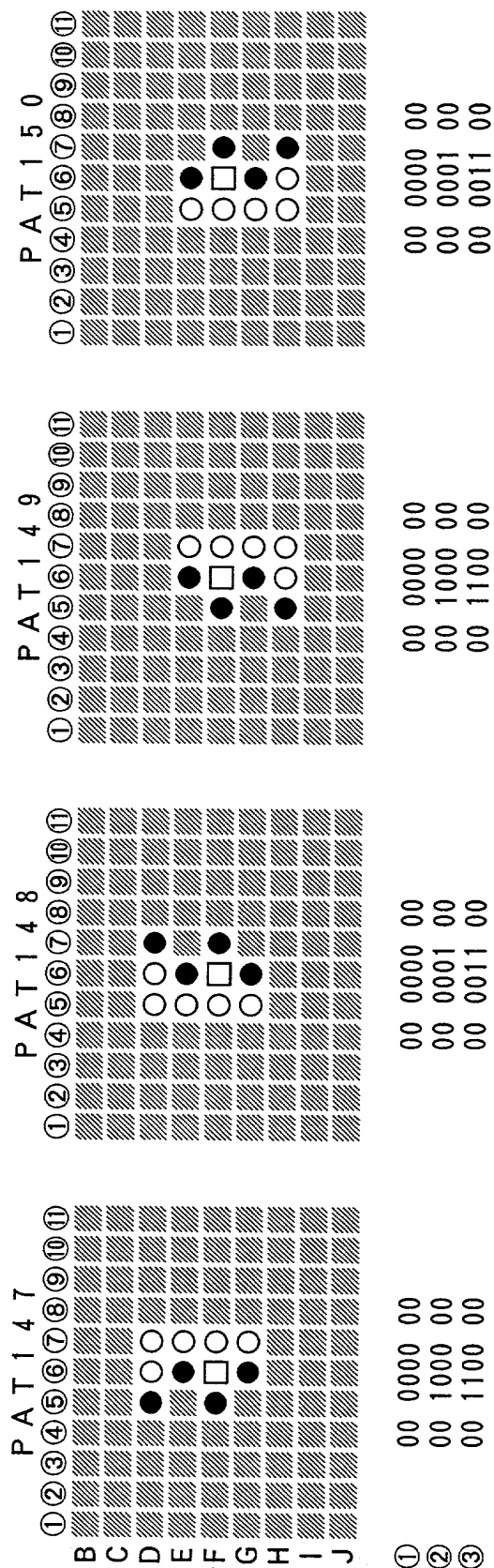


FIG. 39A

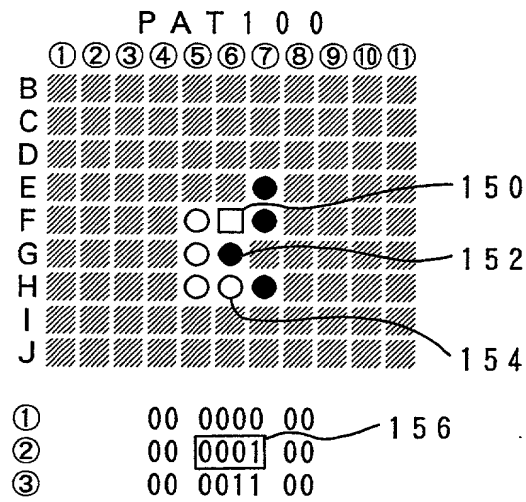


FIG. 39B

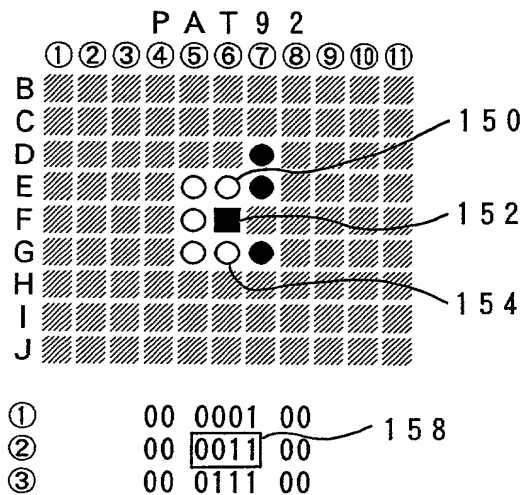


FIG. 39C

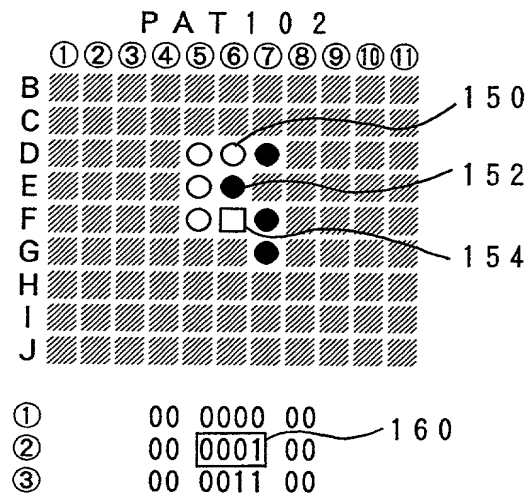
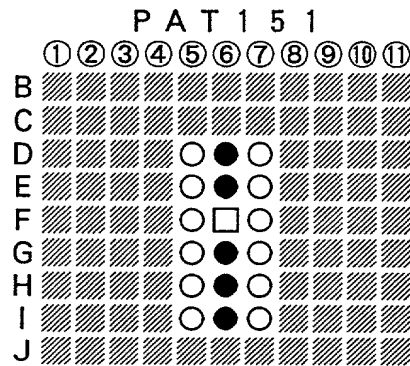


FIG. 40

DENSITY-PRESERVATION-PATTERN COMBINATIONS		
PAT91	PAT99	PAT101
PAT92	PAT100	PAT102
PAT93	PAT101	PAT99
PAT94	PAT102	PAT100

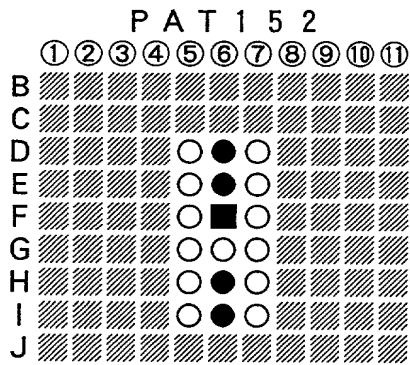
0983560.04101
"0295E860"

FIG. 41A



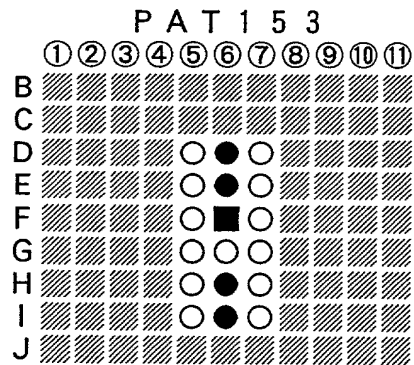
① 00 0100 00
 ② 00 0110 00
 ③ 00 0111 00

FIG. 41B



① 00 0011 00
 ② 00 0111 00
 ③ 00 1111 00

FIG. 41C



① 00 1100 00
 ② 00 1110 00
 ③ 00 1111 00

FIG. 42A

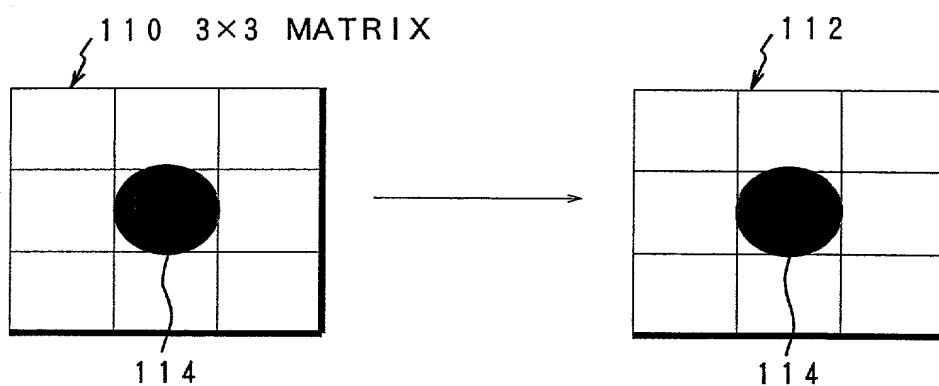


FIG. 42B

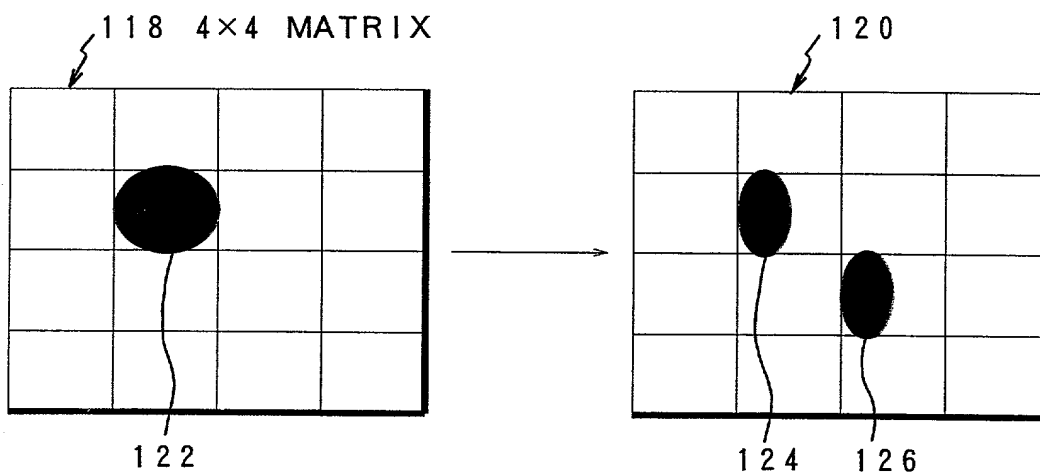


FIG. 42C

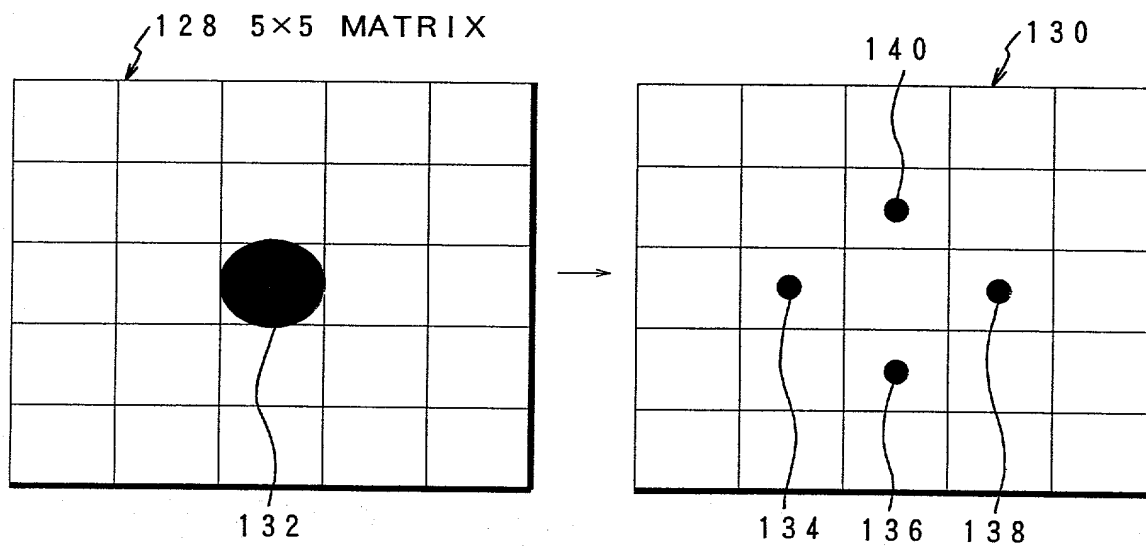
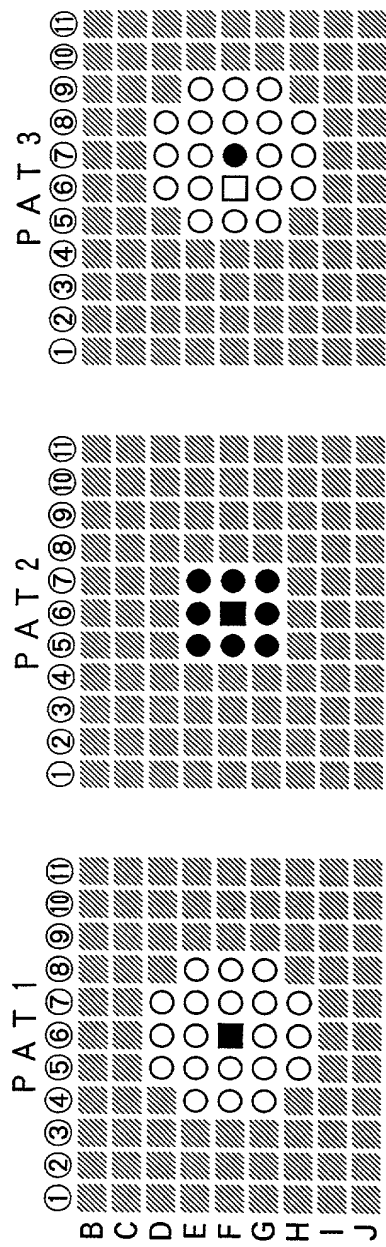


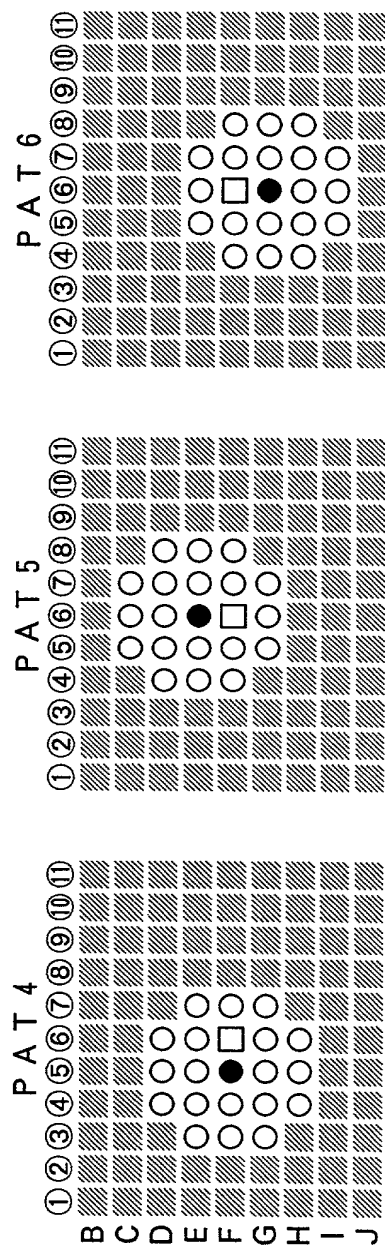
FIG. 43



① 00 0000 00
 ② 00 0010 00
 ③ 00 0110 00

00 1111 00
 00 1110 00
 00 0111 00

00 0100 00
 00 0010 00
 00 1110 00



① 00 0100 00
 ② 00 0010 00
 ③ 00 0111 00

00 0010 00
 00 0100 00
 00 0110 00

00 0100 00
 00 0010 00
 00 0110 00

FIG. 44

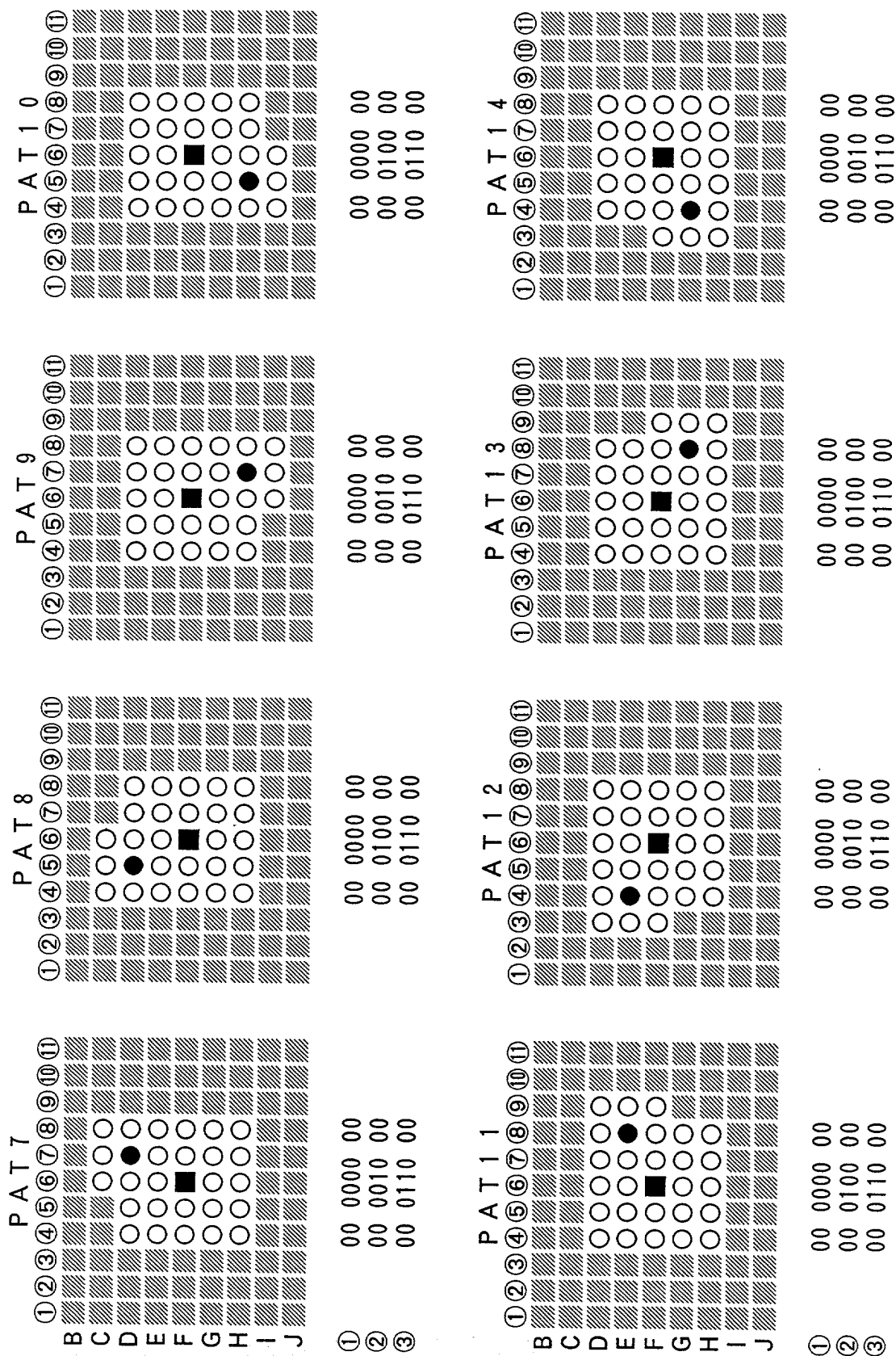
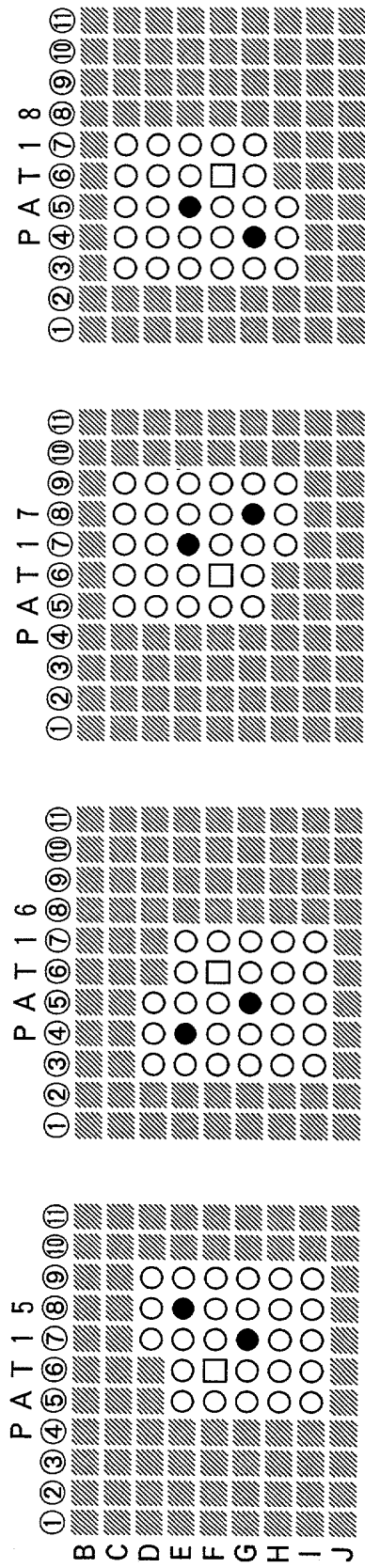


FIG. 45

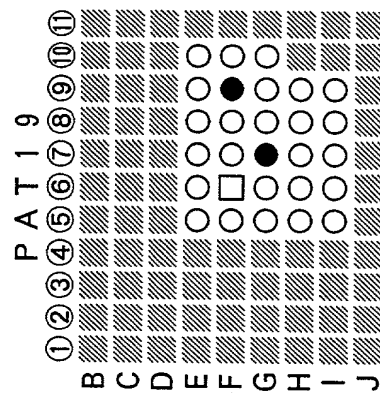


① 00 0000 00
② 00 0100 00
③ 00 0110 00

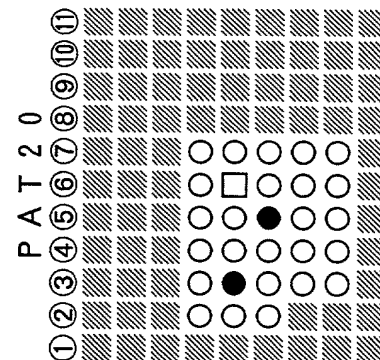
00 0000 00
00 0010 00
00 0110 00

00 0000 00
00 0100 00
00 0110 00

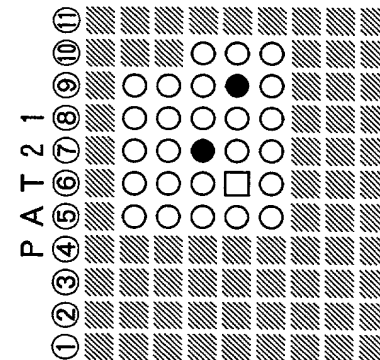
00 0000 00
00 0010 00
00 0110 00



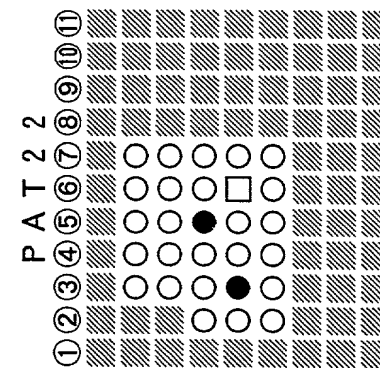
① 00 0000 00
② 00 0100 00
③ 00 0110 00



00 0000 00
00 0010 00
00 0110 00



00 0000 00
00 0100 00
00 0110 00



00 0000 00
00 0010 00
00 0110 00

FIG. 46

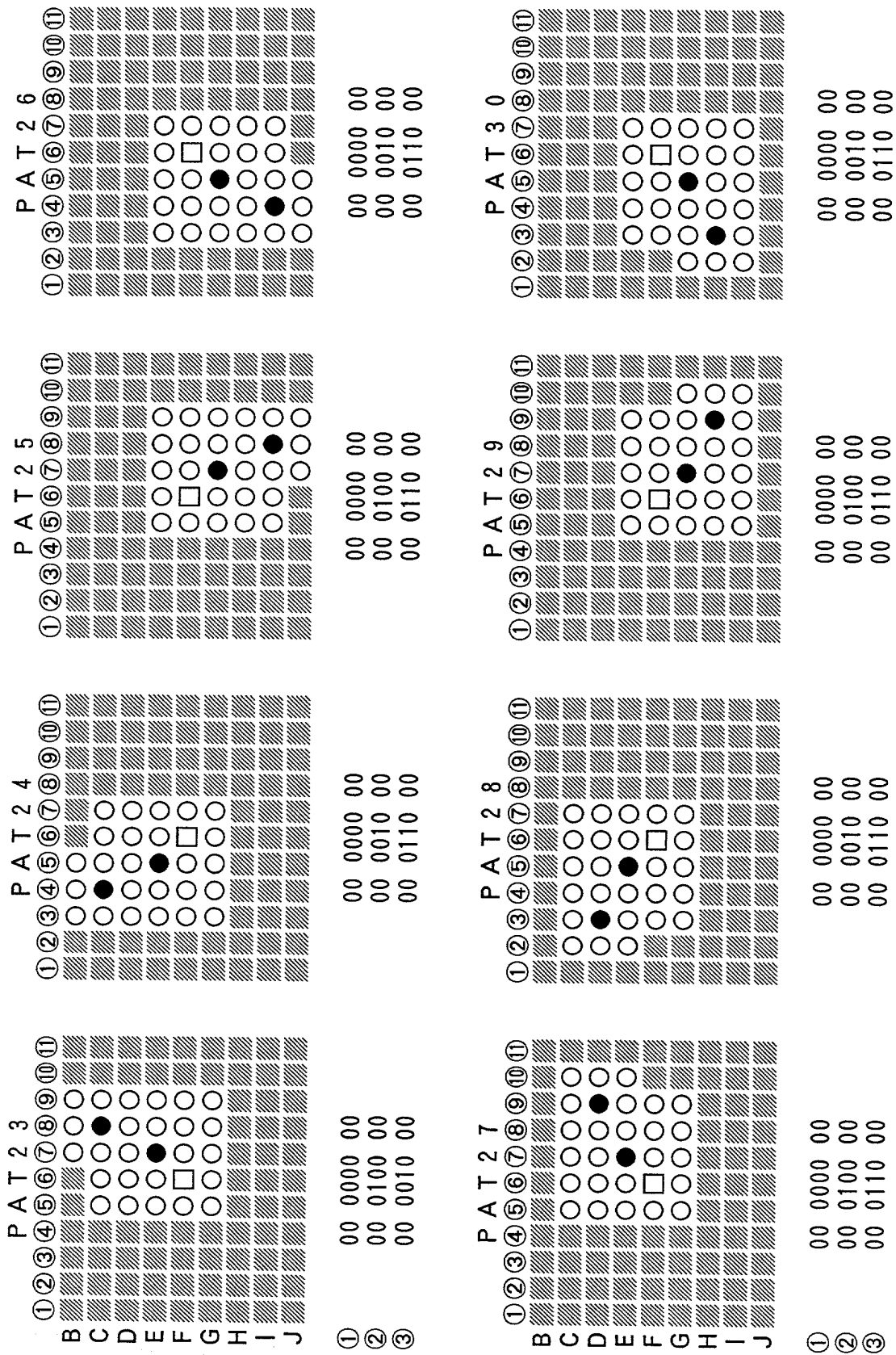
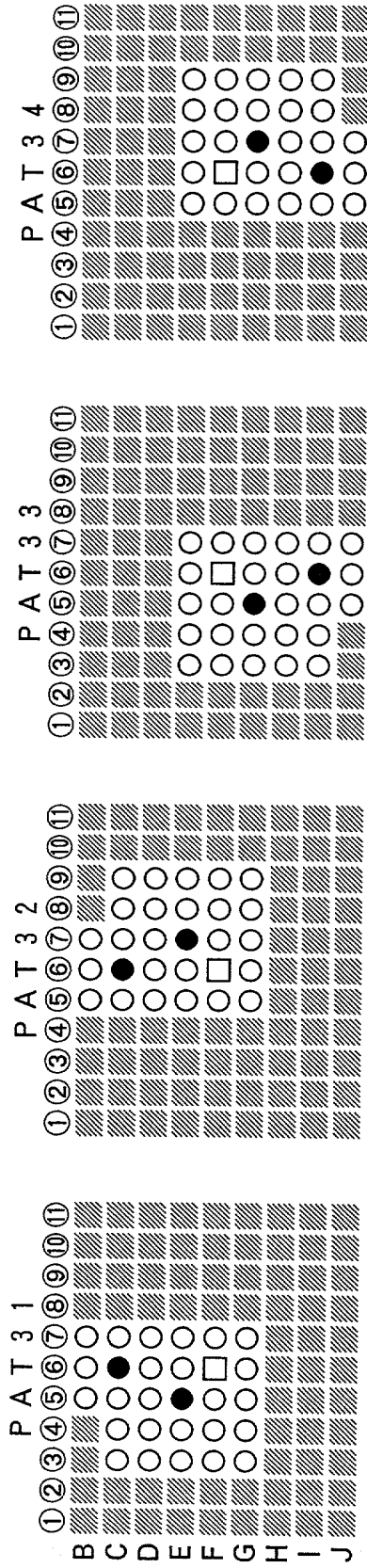
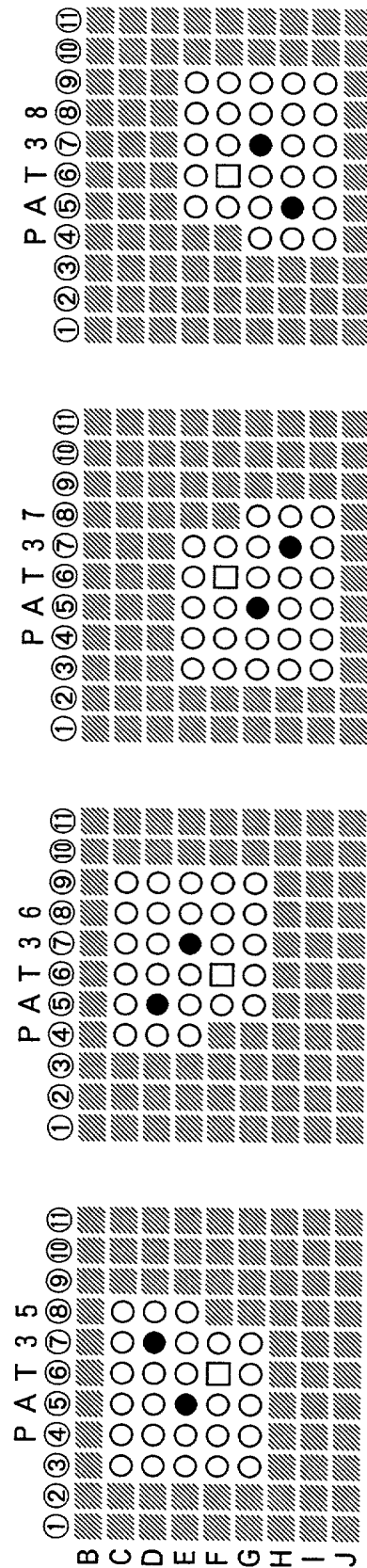


FIG. 47



① 00 0000 00
 ② 00 0010 00
 ③ 00 0110 00

00 0000 00
 00 0100 00
 00 0010 00

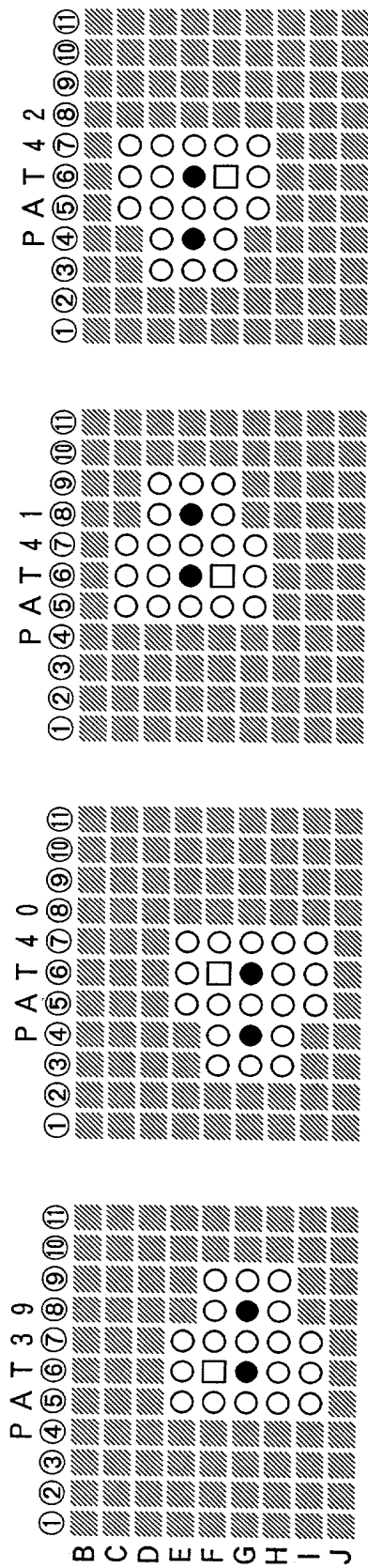


① 00 0000 00
 ② 00 0010 00
 ③ 00 0110 00

00 0000 00
 00 0100 00
 00 0110 00

00 0000 00
 00 0010 00
 00 0110 00

FIG. 48

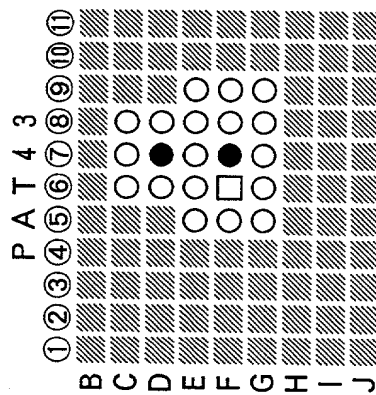


① 00 0100 00
② 00 0110 00
③ 00 1110 00

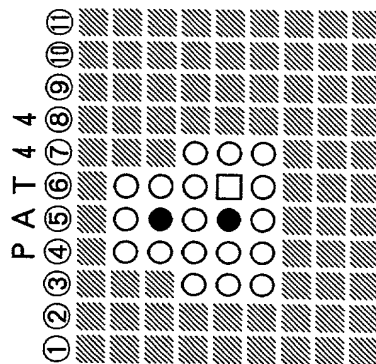
00 0010 00
00 0110 00
00 0111 00

00 0100 00
00 0110 00
00 1110 00

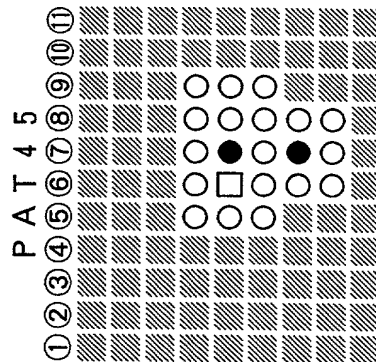
00 0010 00
00 0110 00
00 0111 00



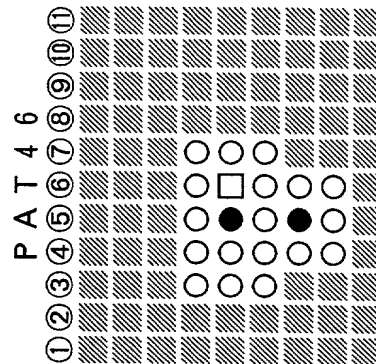
① 00 0100 00
② 00 0110 00
③ 00 1110 00



00 0010 00
00 0110 00
00 0111 00

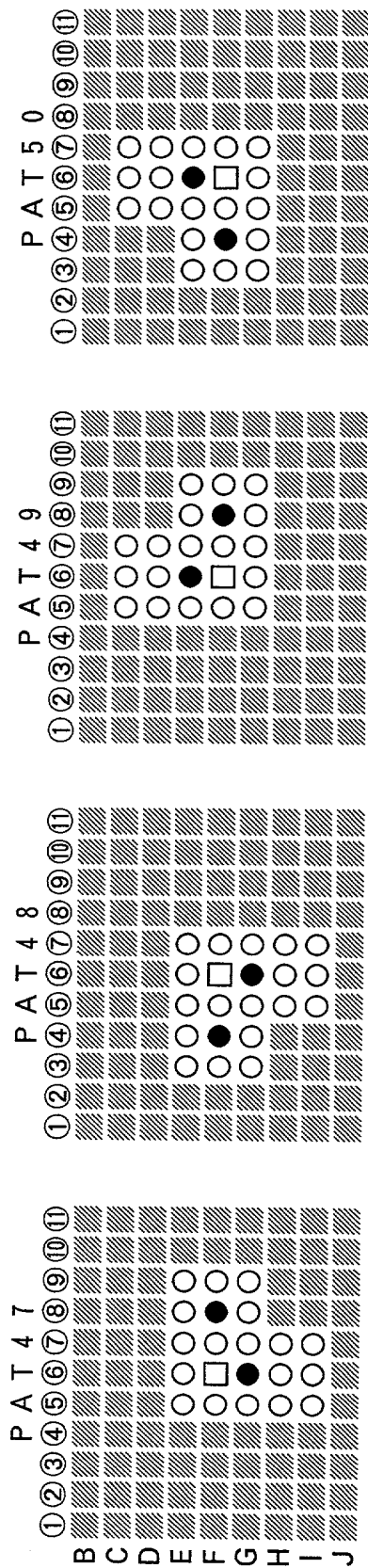


00 0100 00
00 0110 00
00 1110 00



00 0010 00
00 0110 00
00 0111 00

FIG. 49

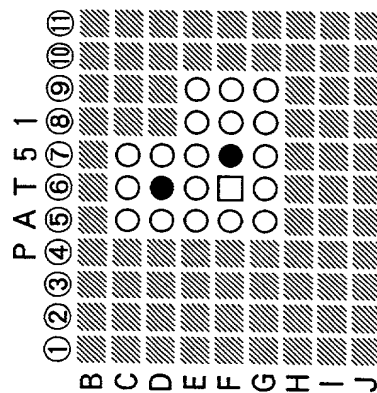


① 00 0100 00
② 00 0110 00
③ 00 1110 00

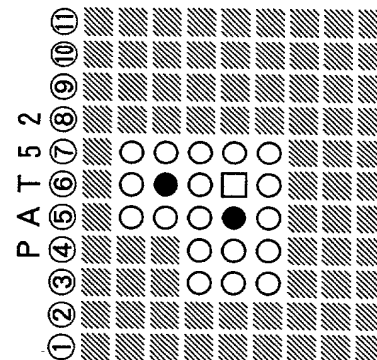
00 0010 00
00 0110 00
00 0111 00

00 0100 00
00 0110 00
00 1110 00

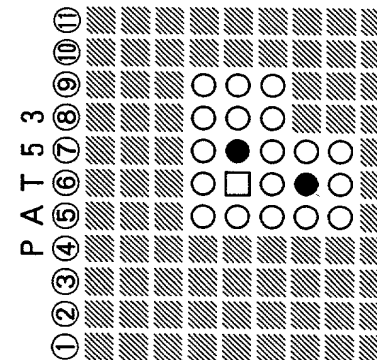
00 0010 00
00 0110 00
00 0111 00



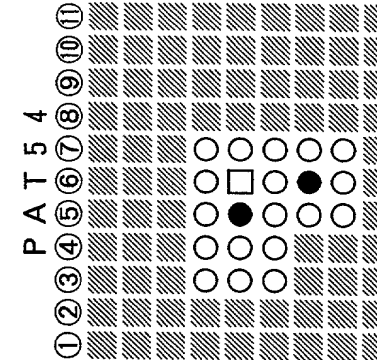
① 00 0100 00
② 00 0110 00
③ 00 1110 00



00 0010 00
00 0110 00
00 0111 00

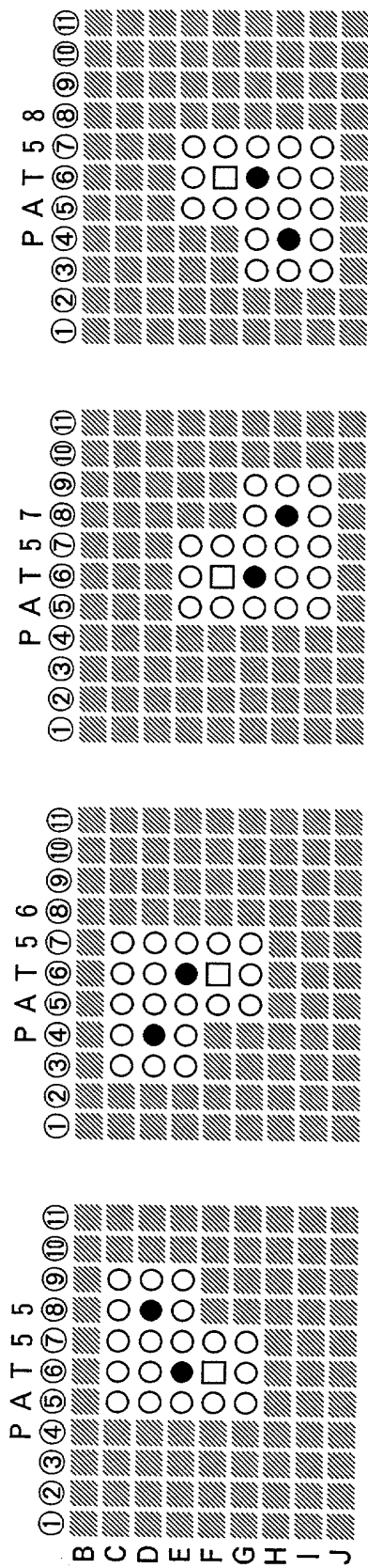


00 0100 00
00 0110 00
00 1110 00



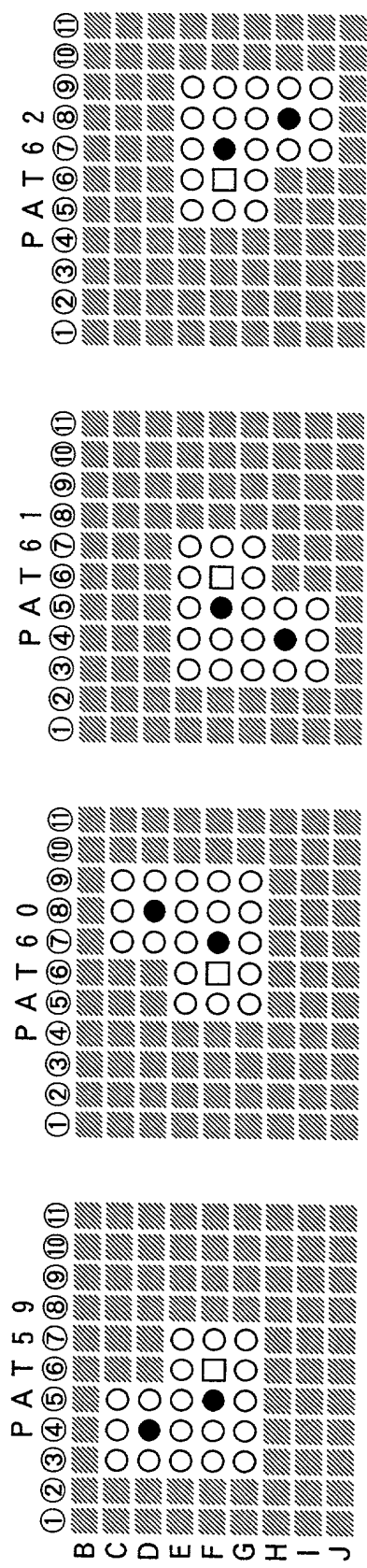
00 0010 00
00 0110 00
00 0111 00

FIG. 50



① 00 0100 00
 ② 00 0110 00
 ③ 00 1110 00

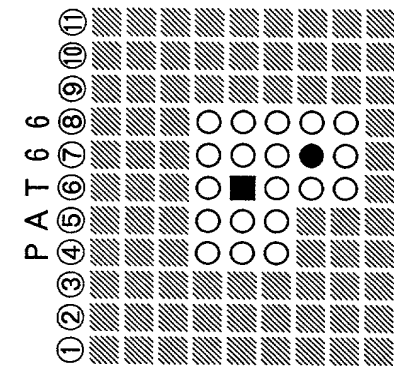
00 0010 00
 00 0110 00
 00 0111 00



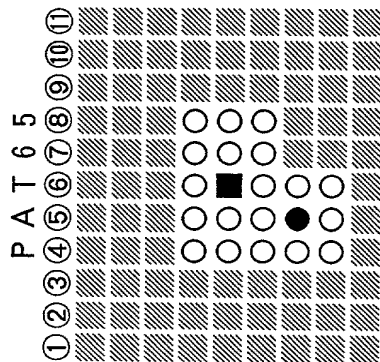
① 00 0010 00
 ② 00 0110 00
 ③ 00 0111 00

00 0100 00
 00 0110 00
 00 1110 00

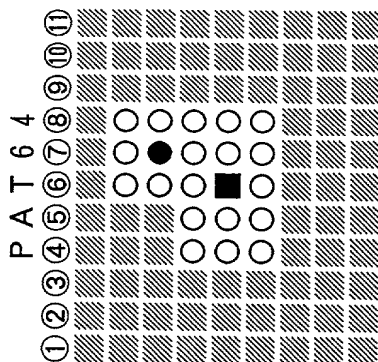
FIG. 51



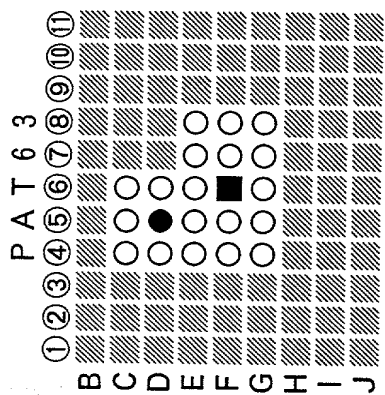
00 0000 00
00 0010 00
00 0110 00



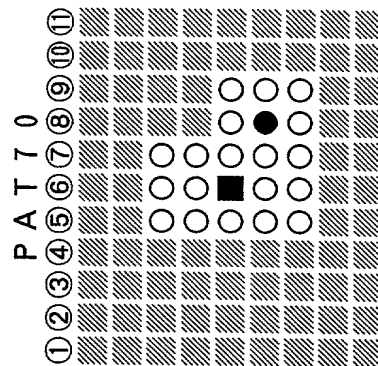
00 0000 00
00 0100 00
00 0110 00



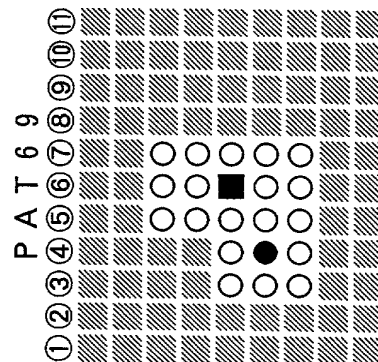
00 0000 00
00 0010 00
00 0110 00



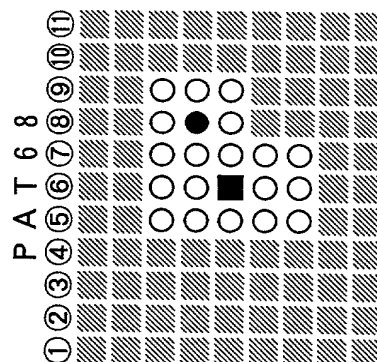
00 0000 00
00 0100 00
00 0110 00



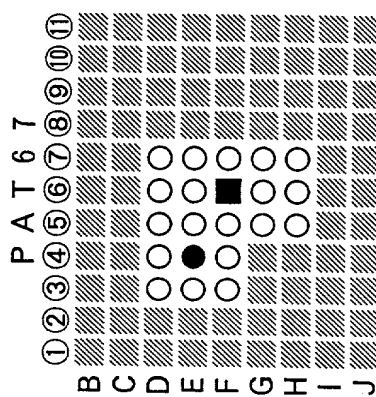
00 0000 00
00 0010 00
00 0110 00



00 0000 00
00 0100 00
00 0110 00



00 0000 00
00 0010 00
00 0110 00



00 0000 00
00 0100 00
00 0110 00

FIG. 52

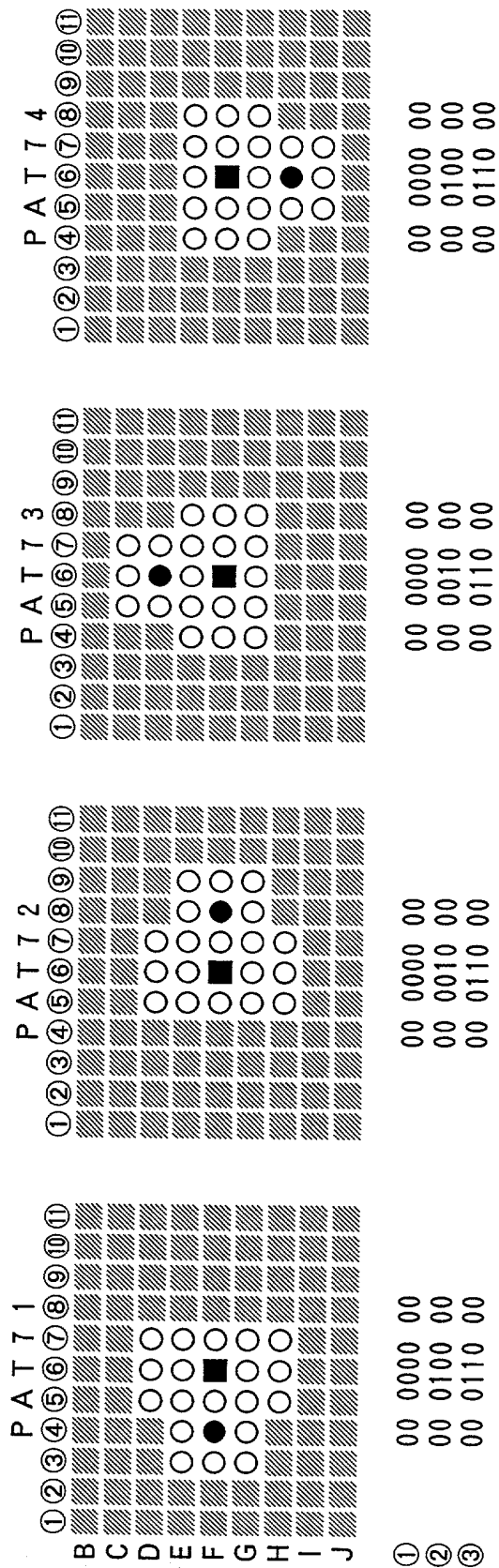


FIG. 53

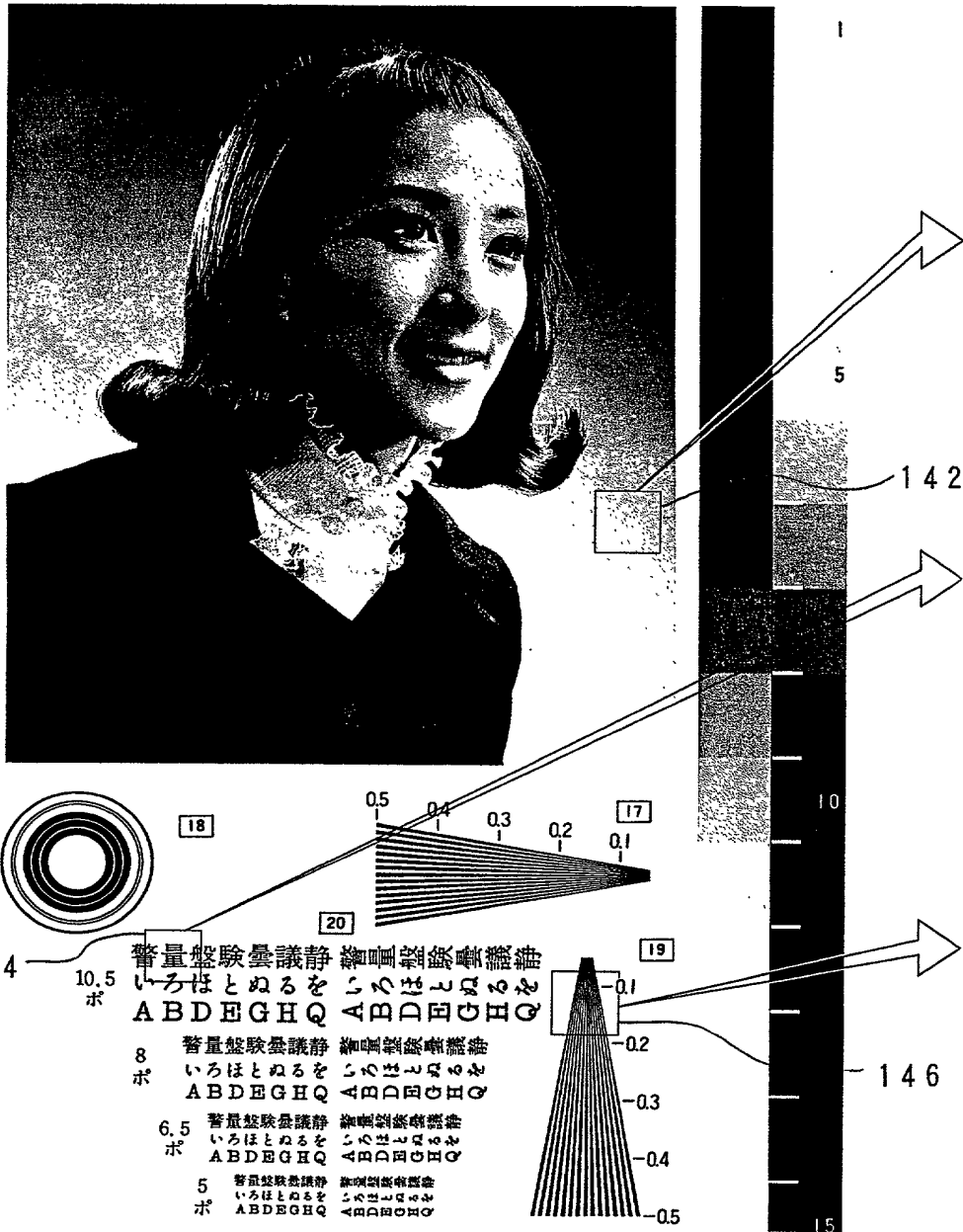


FIG. 54

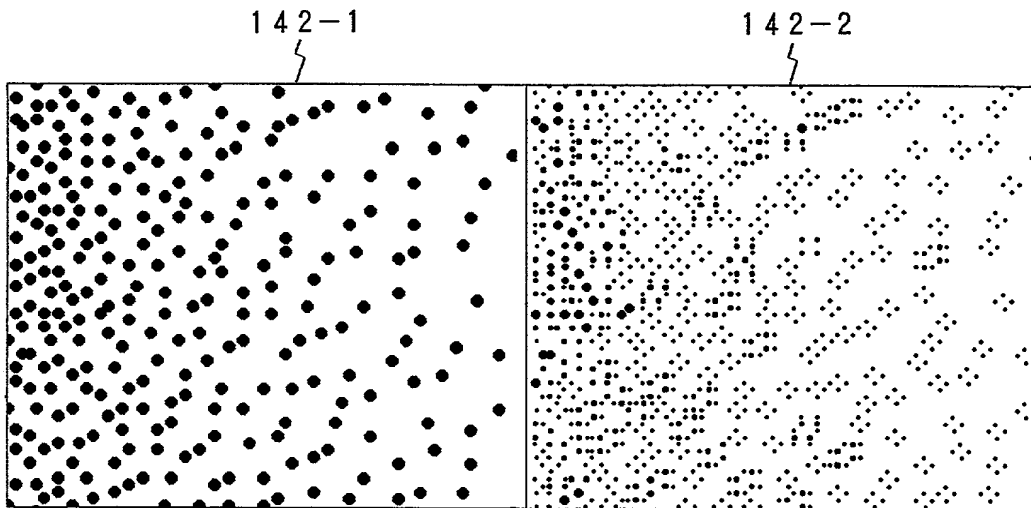


FIG. 55

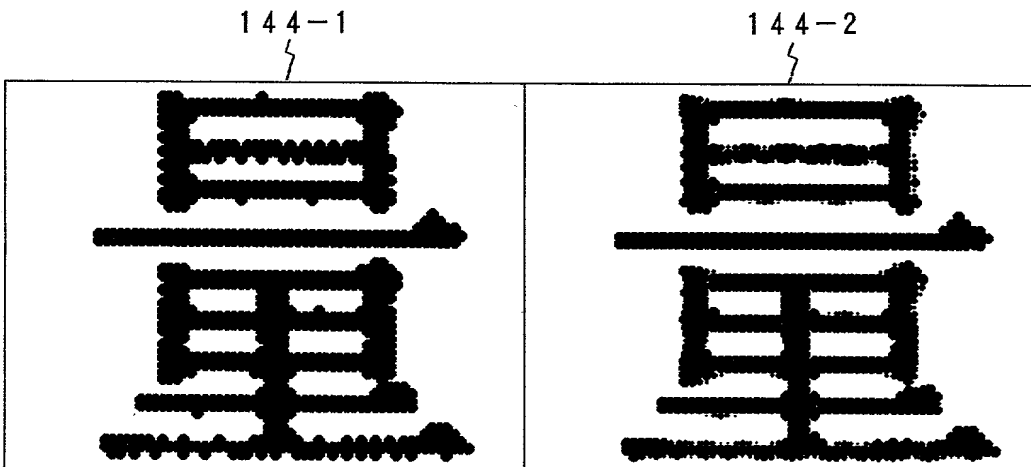
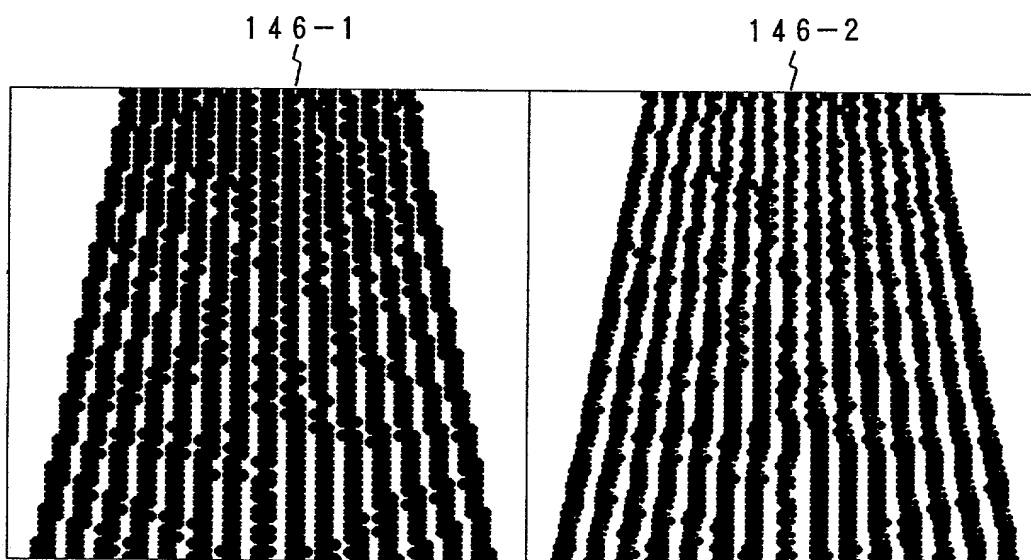


FIG. 56



0295E360 04040

FIG. 57

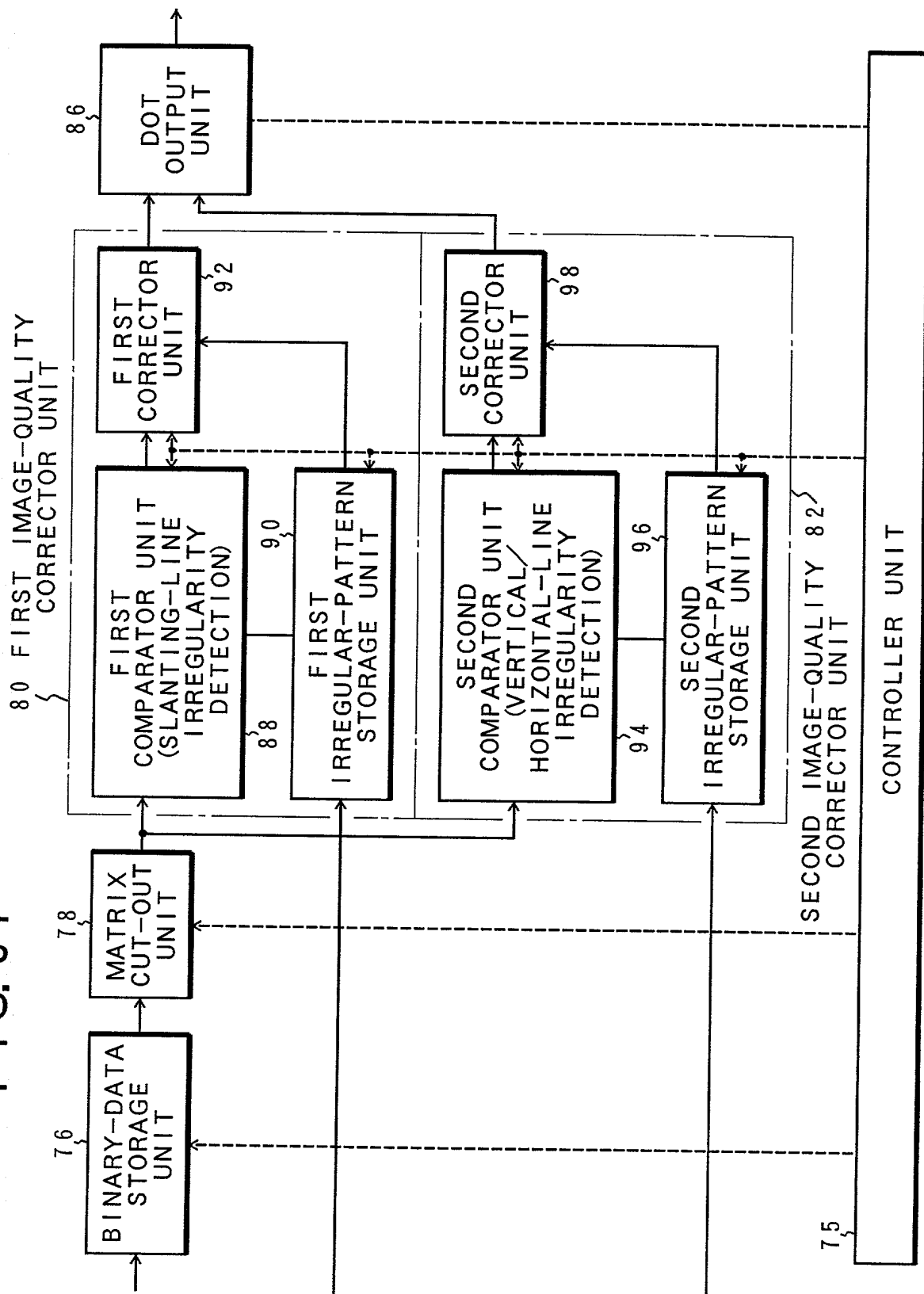


FIG. 58A

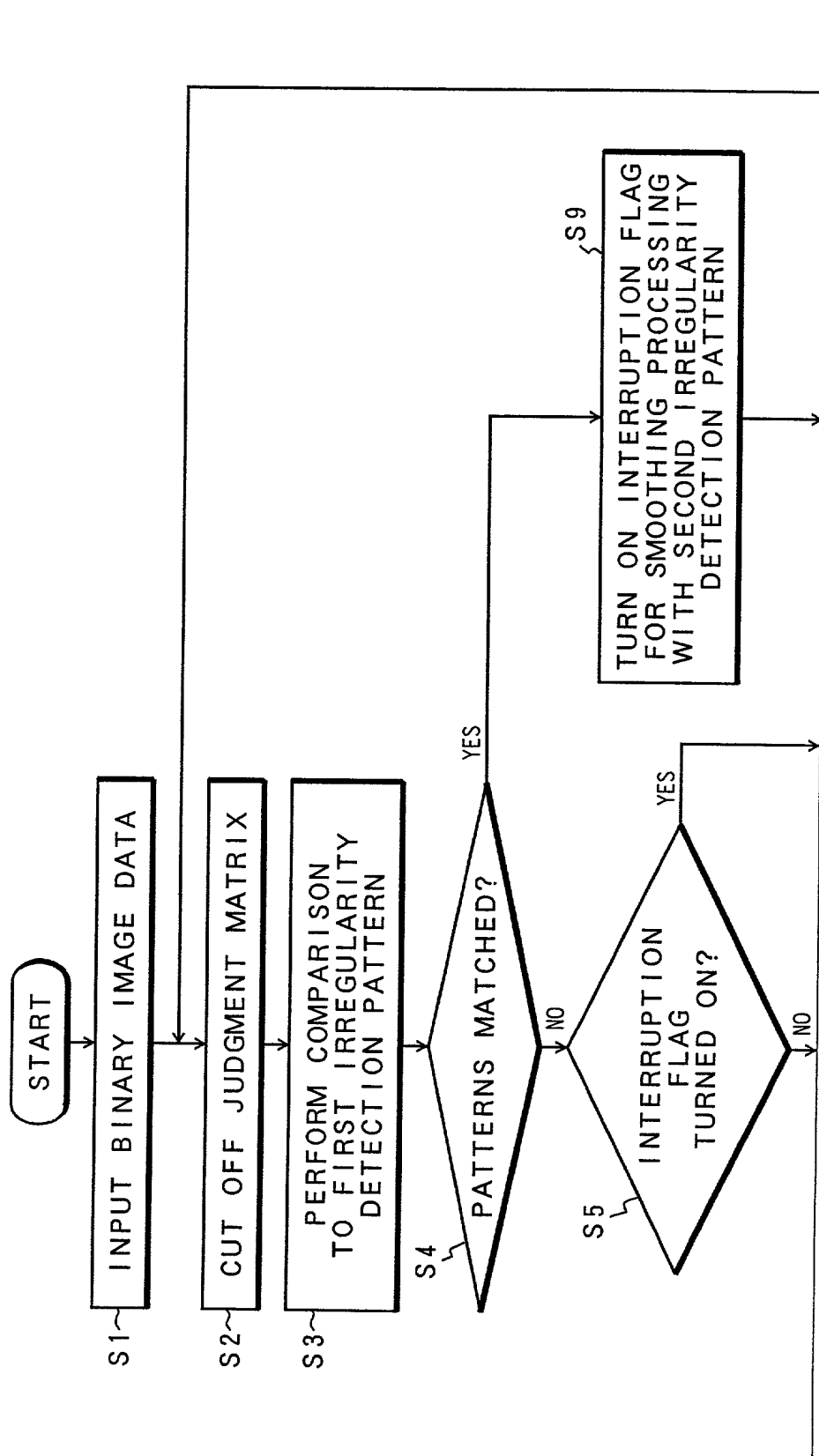


FIG. 58B

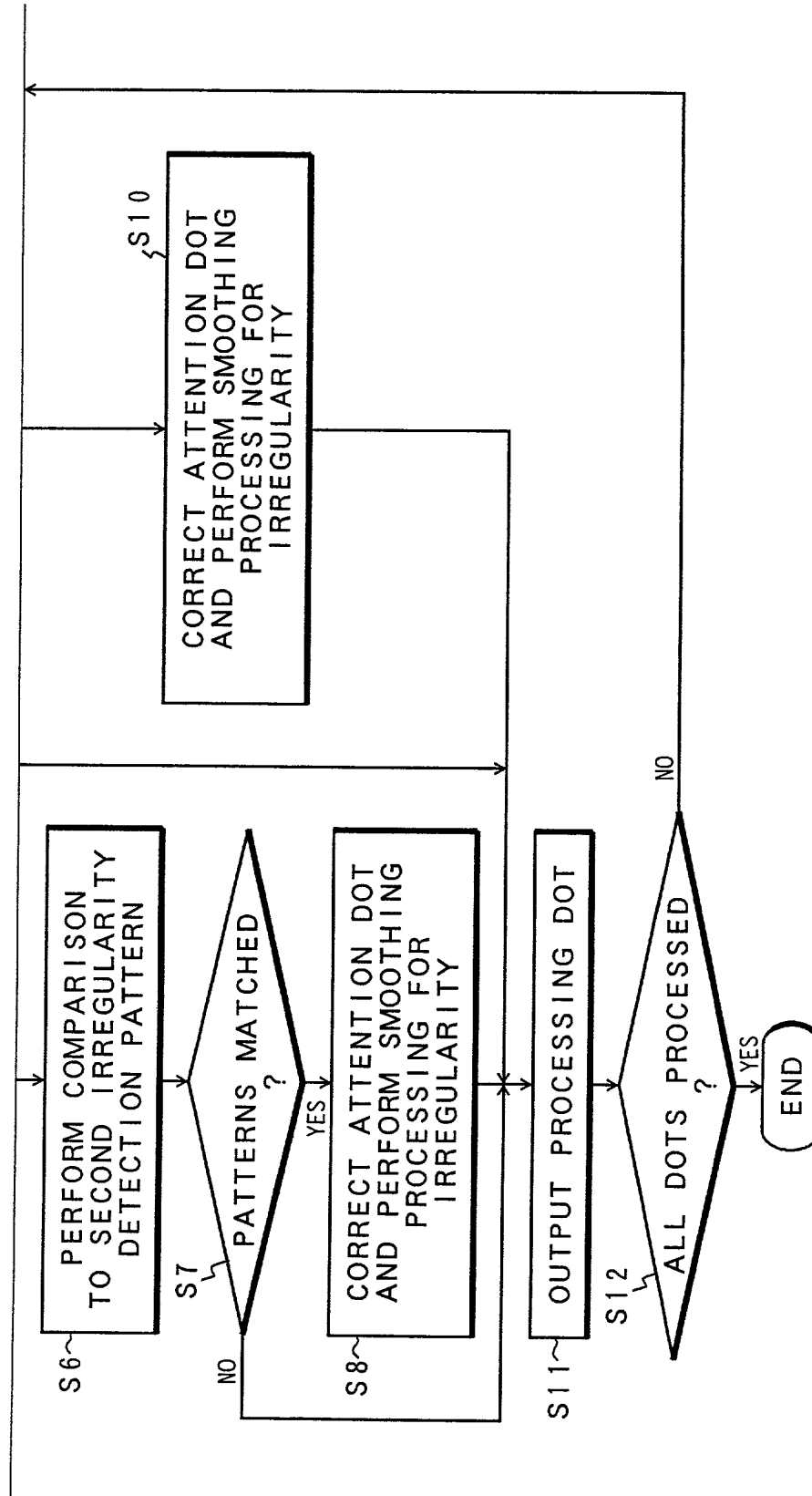


FIG. 59

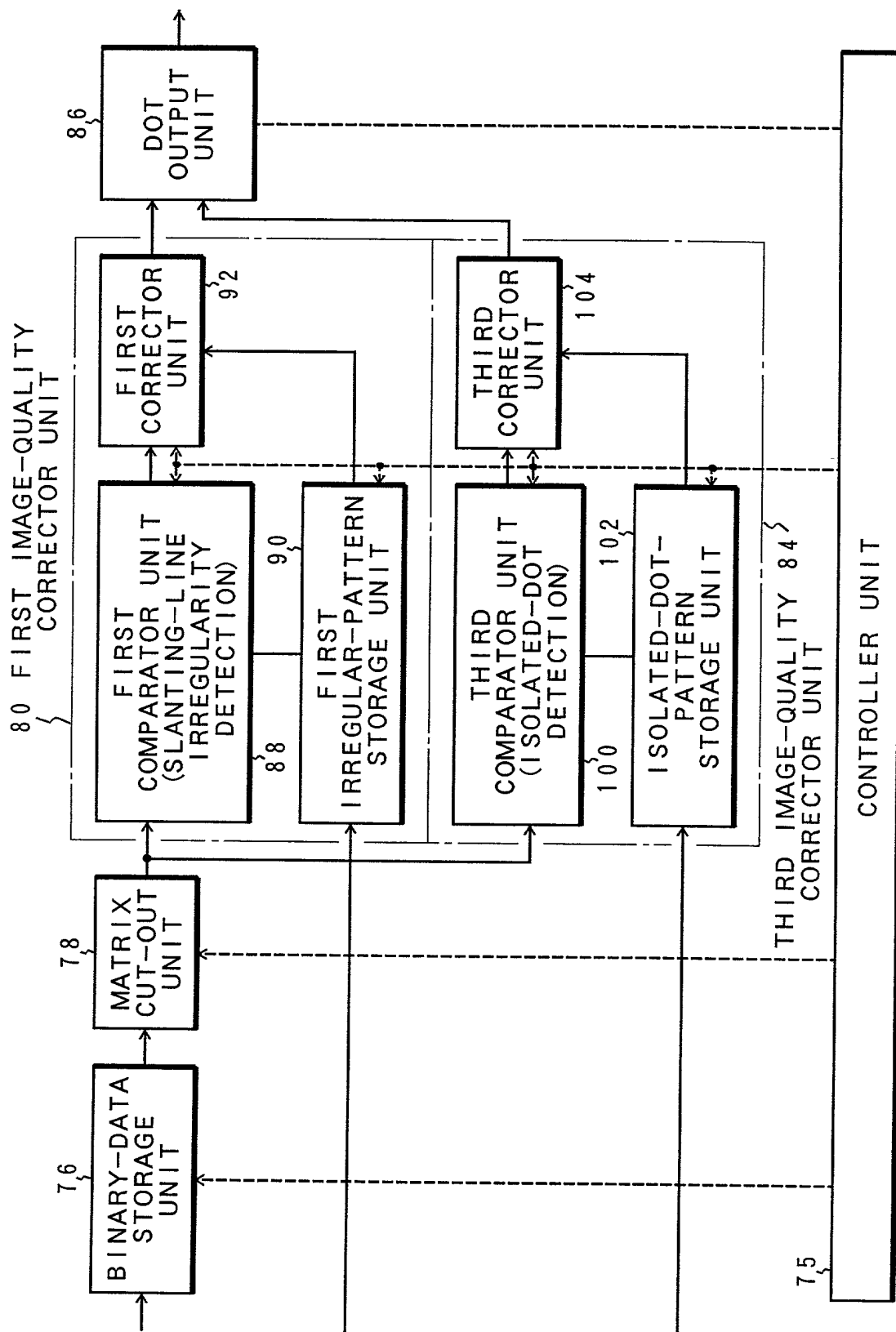


FIG. 60A

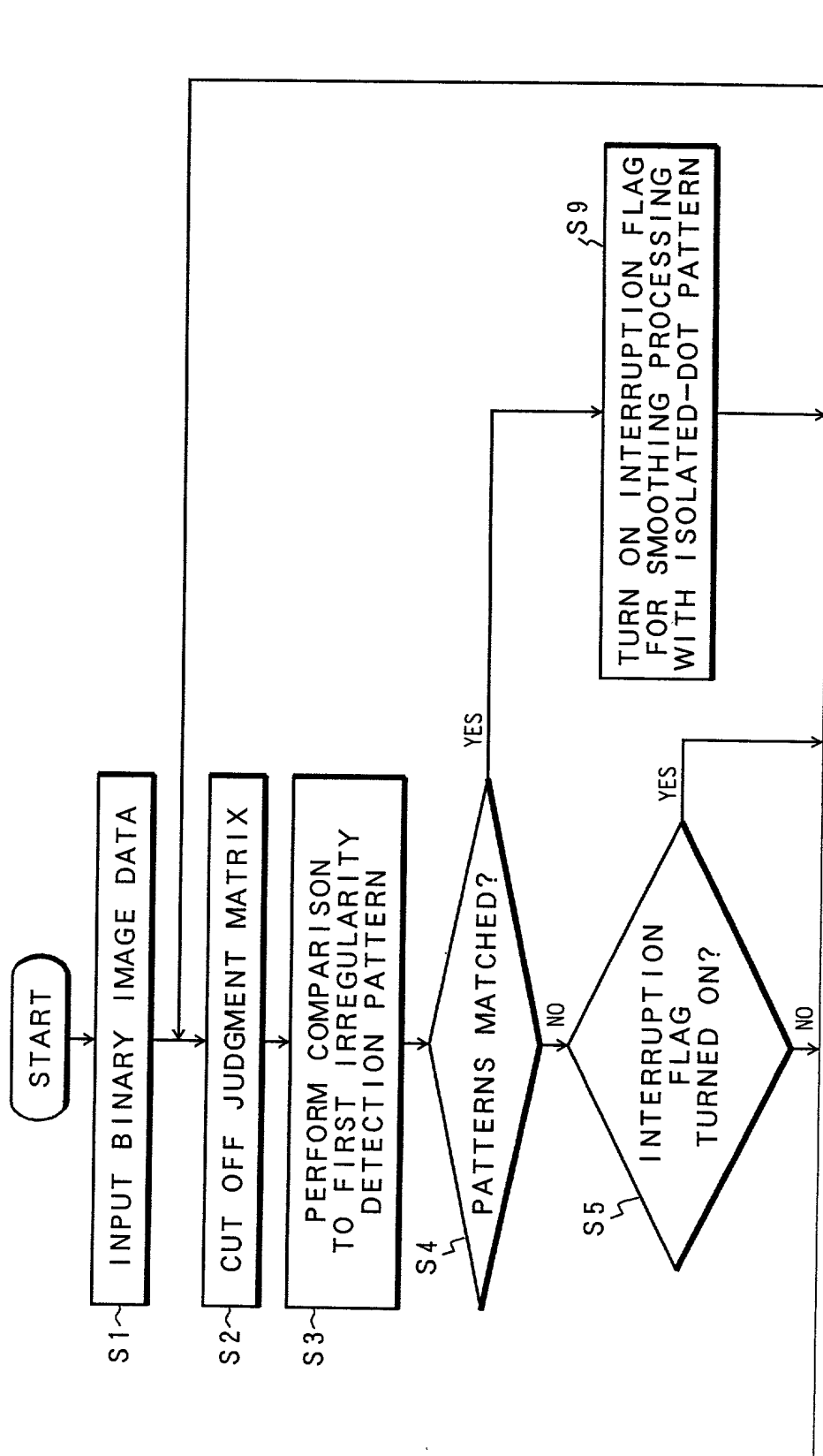




FIG. 60B

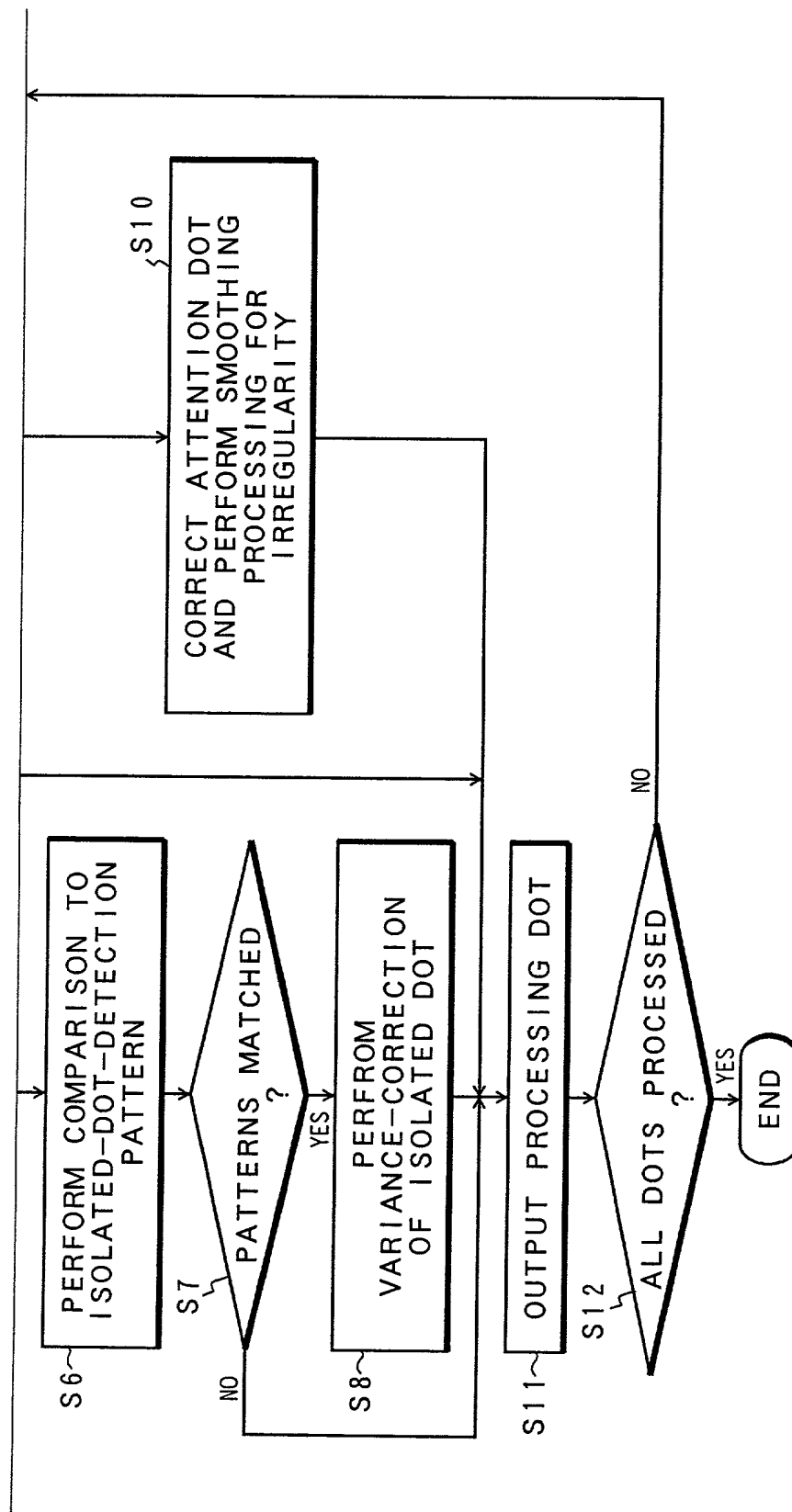


FIG. 61

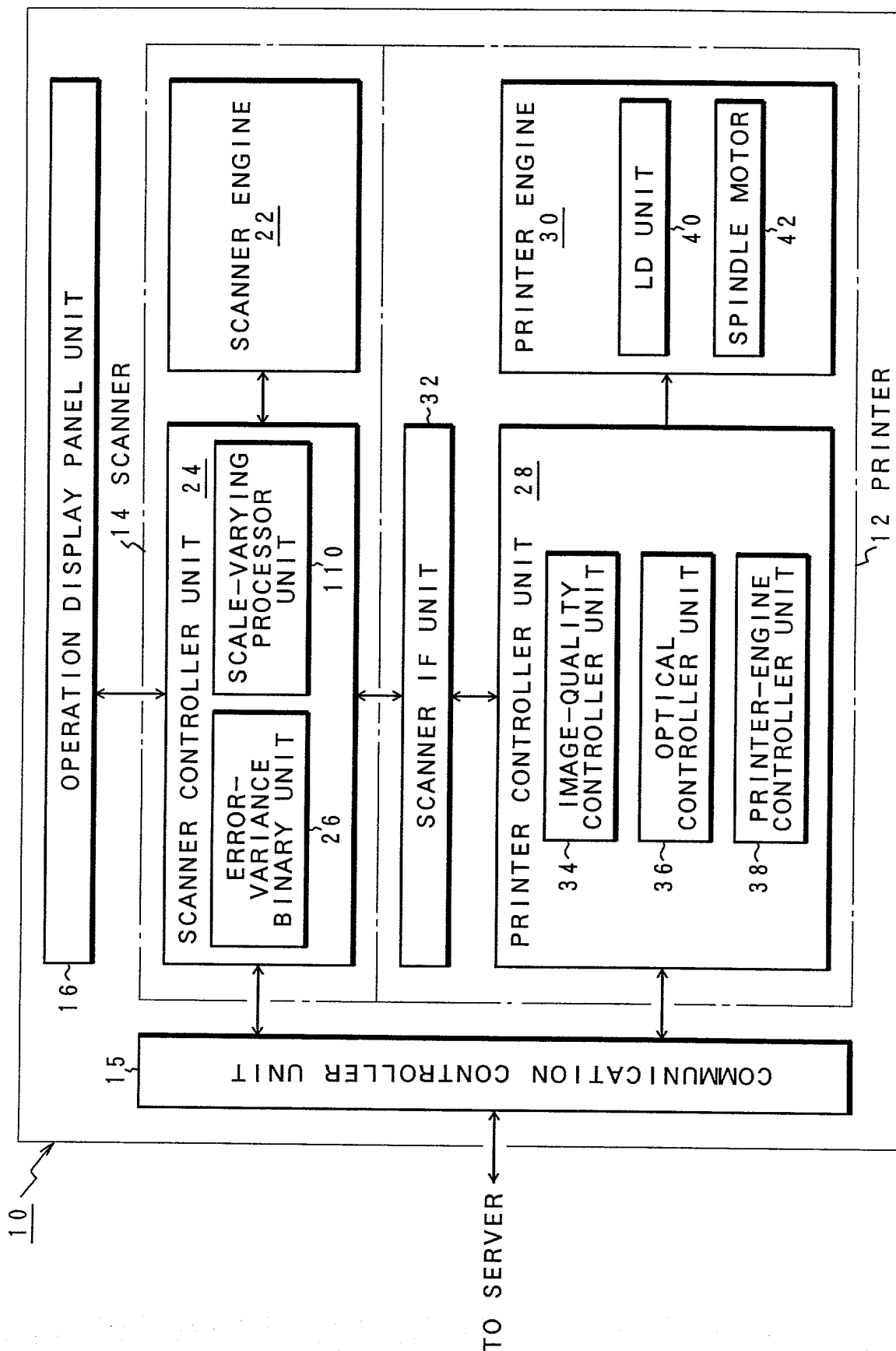
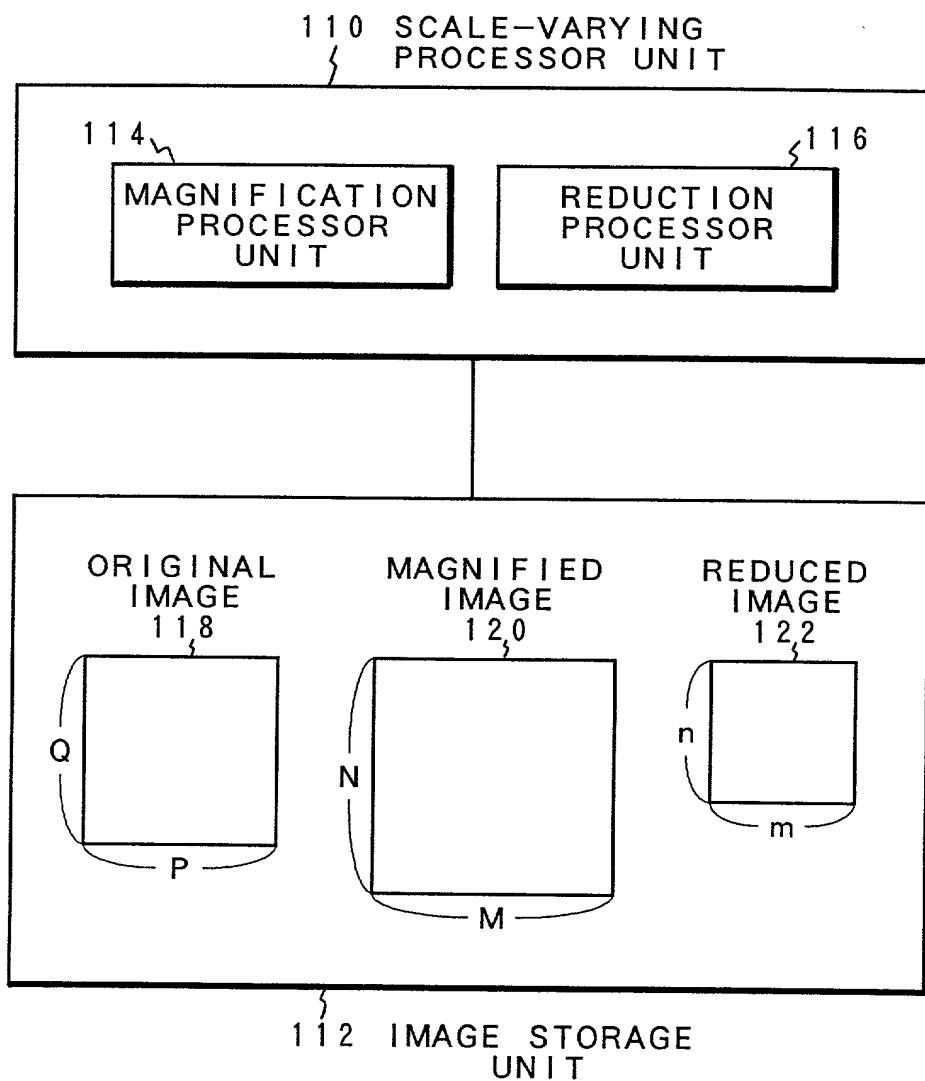


FIG. 62



TOP SECRET

FIG. 63

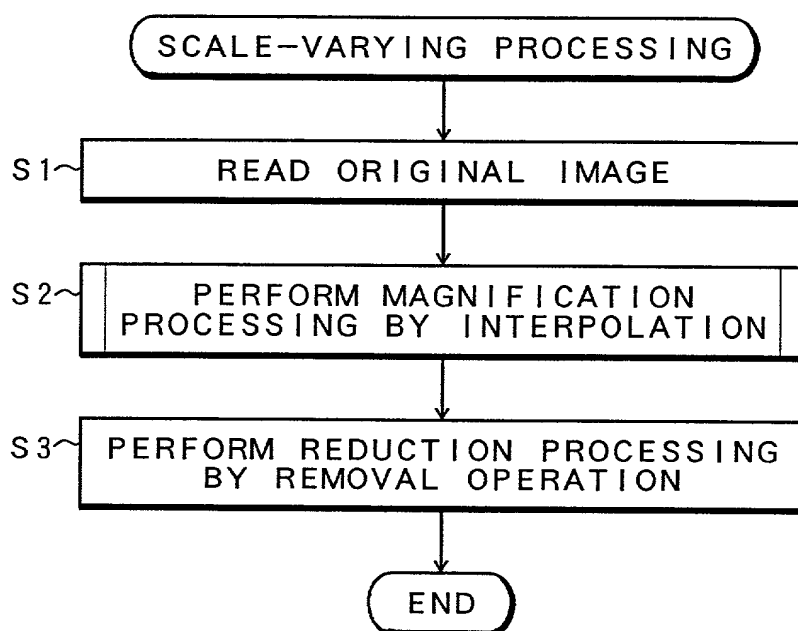


FIG. 64A

118

A	B	C
D	E	F
G	H	I

FIG. 64B

120

A	$(A+B) / 2$	B	$(B+C) / 2$	C	C
$(A+B) / 2$	$(A+B+C+D) / 4$	$(B+C) / 2$	$(C+D+E+F) / 4$	$(C+F) / 2$	$(C+F) / 2$
D	$(D+E) / 2$	E	$(E+F) / 2$	F	F
$(D+G) / 2$	$(D+E+G+H) / 4$	$(E+H) / 2$	$(E+F+H+I) / 4$	$(F+I) / 2$	$(F+I) / 2$
G	$(G+H) / 2$	H	$(H+I) / 2$	I	I

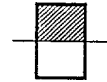
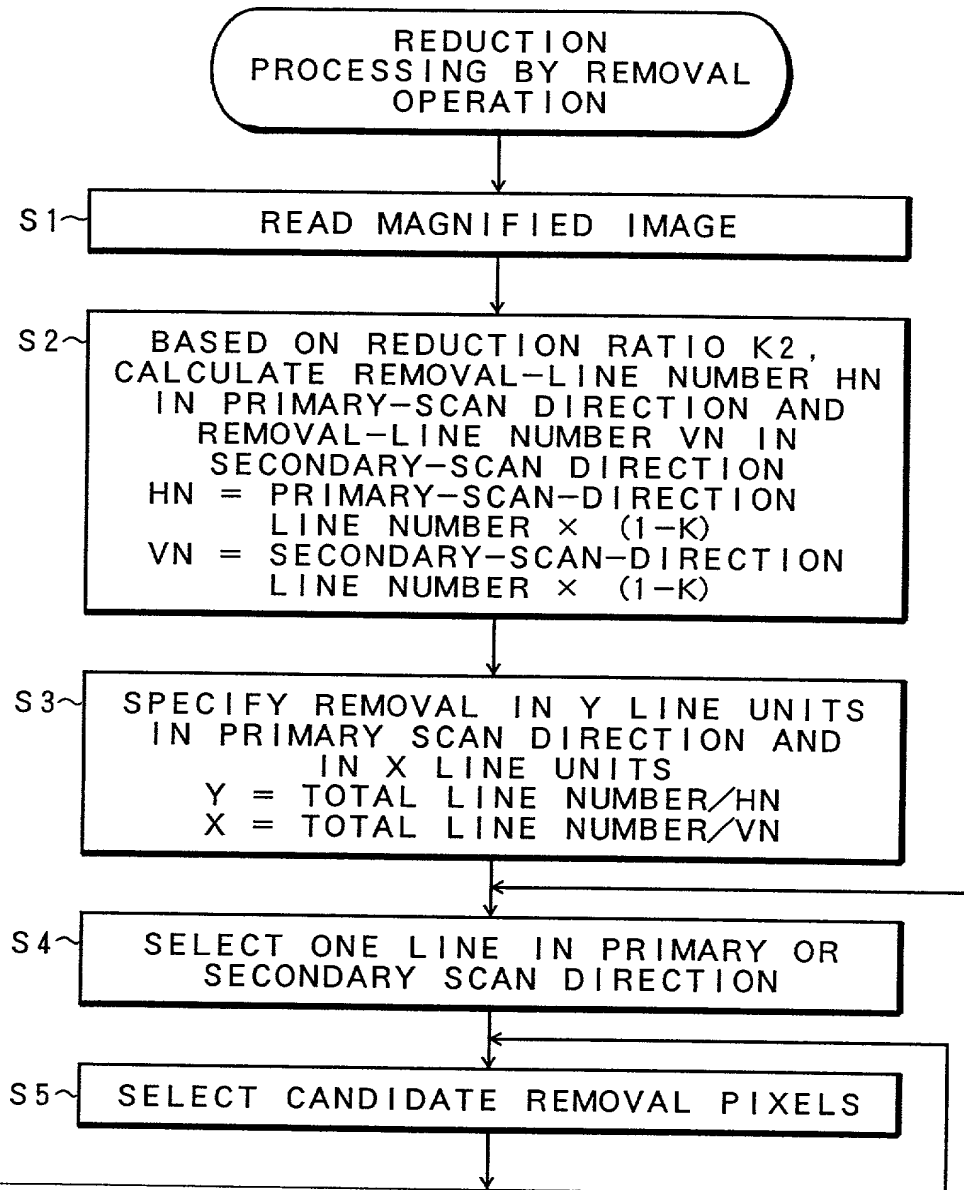


FIG. 65A



09635620-041701

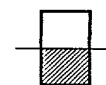


FIG. 65B

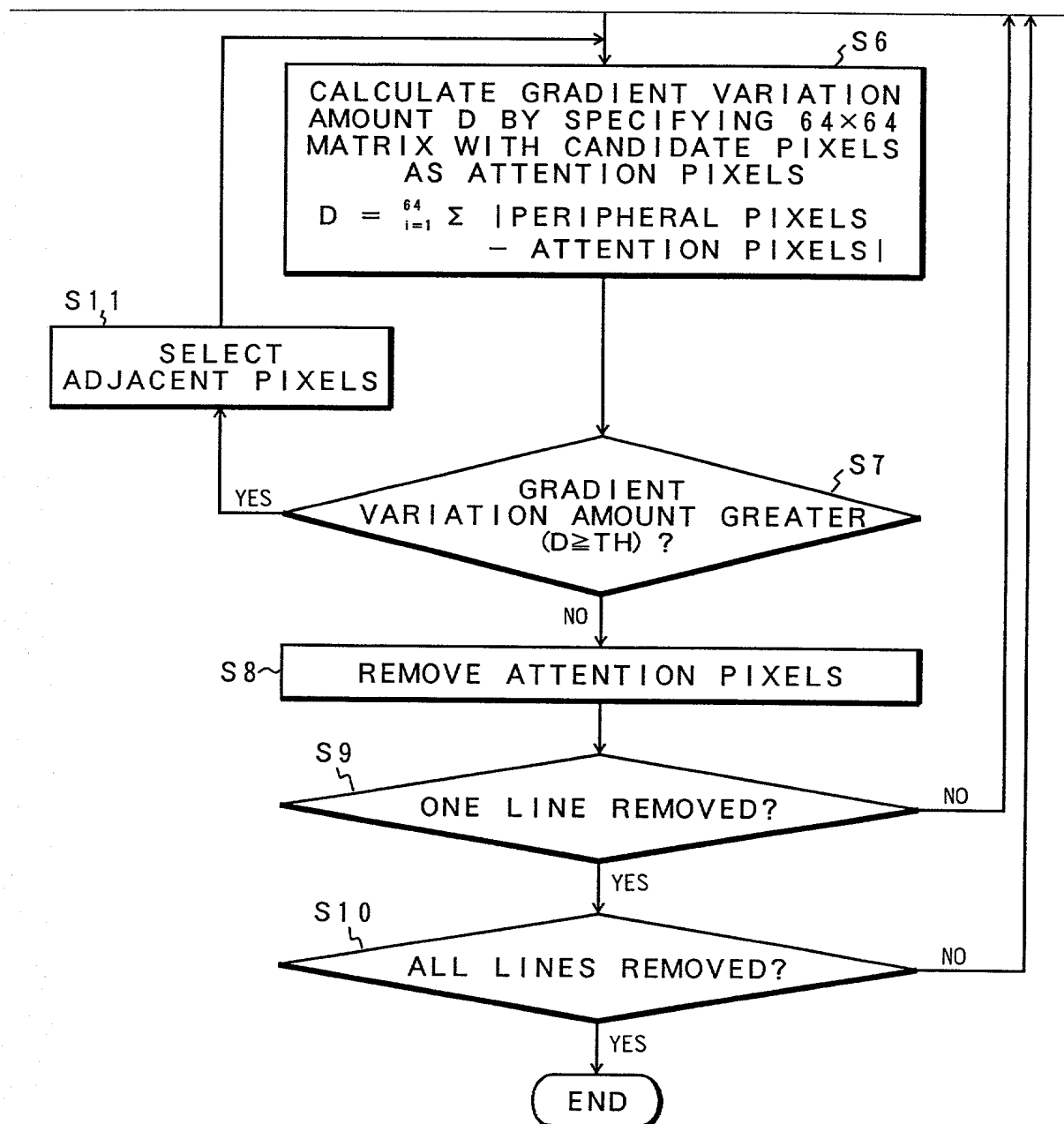


FIG. 66

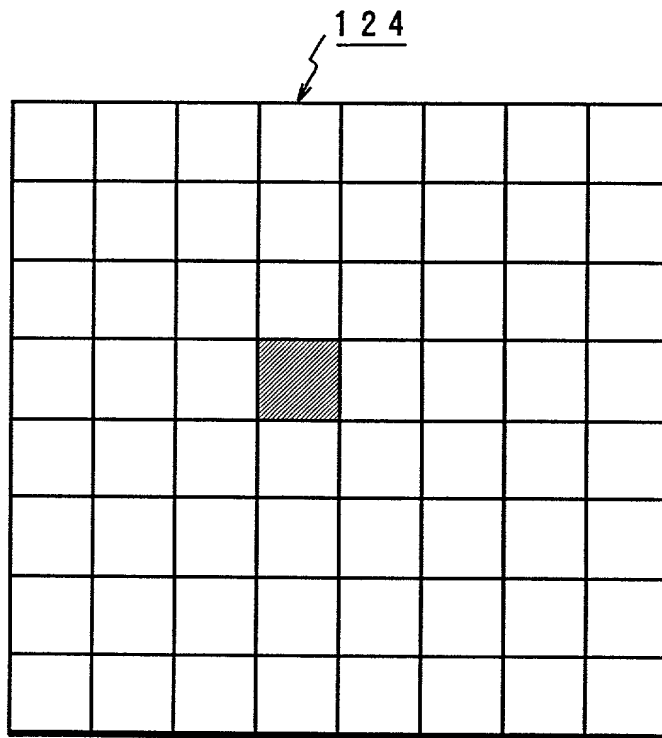


FIG. 67A

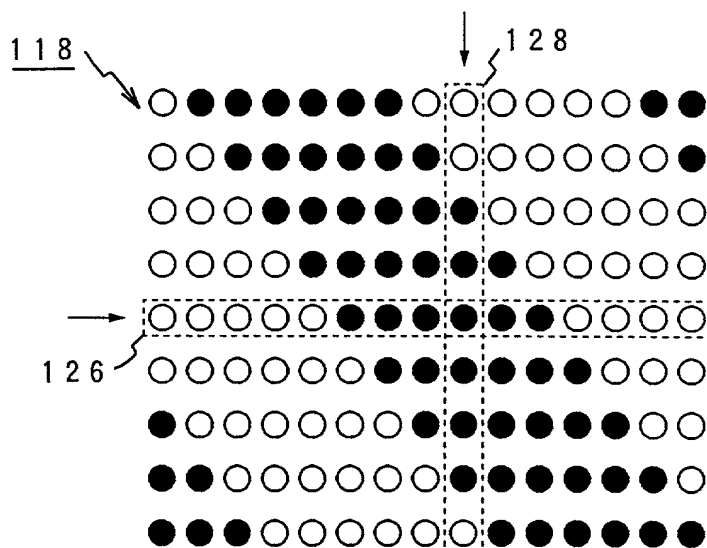


FIG. 67B

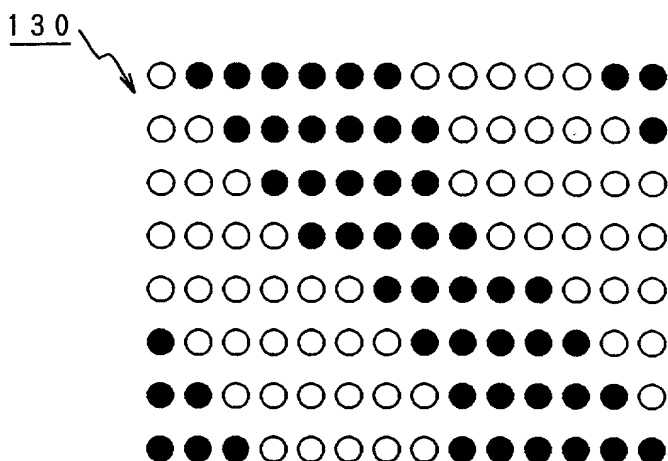


FIG. 67C

